THE EMPLOYMENT AND HOURS OF WORK EFFECTS OF THE CHANGING NATIONAL MINIMUM WAGE

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ABBREVIATIONS

ASHE	Annual Survey of Hours and Earnings
LA	Local Authority
LFS	Labour Force Survey
LPC	Low Pay Commission
NMW	National Minimum Wage
TTWA	Travel-to-Work-Area

SUMMARY

This report is about the employment impacts of National Minimum Wage (NMW) rises in the period 2001-2006. This was a period where the NMW rose substantially in excess of average earnings.

The report presents results based on analysis of individual Labour Force Survey (LFS) data and Annual Survey of Hours and Earnings (ASHE) data together with local area analysis.

The focus of the analysis is threefold. First, it investigates changes in wages as a response to increases in the NMW. Second, it analyses employment to see if changes in the NMW influenced individual job retention and job exit, job entry, local area employment and unemployment rates. Third, it focusses on analysis of hours worked to see if employers changed hours worked as a response to changes in the NMW.

Methodology

We investigate the impacts on employment of increases in the NMW using data that tracks individuals over time and data that tracks local areas over time.

The methodology allows for the possibility that the NMW may have affected labour market outcomes of low paid workers who are paid more than the NMW. When using individual level data we assess outcomes for workers directly affected by the NMW using two comparison groups: those employees paid up to 10 per cent above the new NMW, and a group of employees that were paid 10-20 per cent above the new NMW. The estimated impacts of the NMW on local area employment include the effects of the NMW on those paid below the NMW as well as any spillover effects to those paid more than the NMW.

The choice of methodology is also influenced by the concern that there are many factors other than the NMW that are likely to have changed the fortunes of low-paid workers relative to other workers in the years since the introduction of the NMW; including a barrage of Welfare-to-Work interventions, strong overall economic performance, and the changing nature of immigration following EU enlargement. Our analysis identifies the impacts of marginal changes in the NMW rather than changes over longer time periods. We use difference-in-difference models over relatively short time horizons, data frequency allowing, and single difference models where we lack a recent comparison period over which the NMW was unchanged.

In the analysis of individual level data results are presented for models with and without control variables using two measures of the minimum wage policy. First, we identify the impact of the NMW using a policy dummy variable which identifies employees who were earning above the existing NMW, but below the forthcoming NMW and hence who would be directly affected by the new rate. Second, we use a wage gap estimator that indicates how far below the forthcoming NMW these employees' current pay is, and hence how much their pay

needs to increase to be paid the new minimum wage. The local area analysis utilises the regional variation in the impact of the NMW to examine its effects on outcomes. We estimate area level panel data models and identify the impact of the NMW using a range of indicators that show how much it "bites" in each area and each year.

Impact on wages

The evidence on wages is fairly clear. The strongest wage growth was in the lower percentiles of the wage distribution and hence the NMW increases wages more for those directly affected by it. The only exception is in 2002, which corresponds to the only year in the period of investigation where the NMW increase was below the average earnings increase. The 2000 and 2007 upratings were also less than average earnings increases, but these fall outside our sample period.

Impact on Employment

The evidence on employment is mixed, but overall there is no compelling evidence to indicate that the large NMW rises had an adverse effect on employment. The effects on employment are variable and are different by gender and year and also vary by choice of comparison group and data source.

Analysing LFS longitudinal data we generally find no evidence of a relationship between increases in the NMW and female job retention. In a standard difference-in-differences model, comparing minimum wage workers to those paid 10-20 per cent above the NMW, we find a positive and statistically significant effect of the 2003 uprating on six month job retention for adult females. This result does not hold up when we compare minimum wage workers to those paid up to 10 per cent above the NMW. In a single difference model, comparison of six month job retention rates for minimum wage workers to those for workers paid up to 10 per cent above the NMW, suggests annual NMW increases may have reduced the probability of remaining employed for adult women. This is largely due to a significant impact of the 2001 uprating. These effects are not significant in single difference models of six month job retention rates where the comparison is to workers paid 10-20 per cent above the NMW or in 12 month single difference models where we control for other factors affecting job retention. Overall then the evidence for adult women is mixed and does not suggest that the impacts of increases in the NMW on employment chances for adult women are different from zero.

For adult men the evidence is also mixed. Using LFS data we find positive employment retention effects of the 2002 uprating in some models. But, the increase in the NMW at that time was negligible such that it is difficult to interpret these findings as being related to the NMW. It is of course possible that the absence of a significant increase in the NMW in 2002 meant that employment growth for low paid workers was stronger in 2002 than in years where the NMW uprating was larger. The impact of the 2006 uprating on adult male

employment retention is also found to be positive, but only in the dummy variable model against the up to 10 per cent above NMW comparison group. The single difference models, however, indicate some negative effects on job retention associated with increases in the NMW. These primarily arise through the effect of the 2003 uprating, and are only significant in wage gap models against the 10-20 per cent above NMW comparison group.

Evidence on job entry is limited and only available for adult women from the LFS. By necessity, the analysis of job entry focuses on individuals paid exactly at the NMW (rather than individuals paid between the existing and new NMW). This means that sample sizes are too small for analysis for all but the largest group of low paid workers. Most of the associations between the NMW and job entry are not significant. We find some evidence of negative impacts on job entry of the 2003 and 2004 upratings, but not consistently across different models.

Evidence from ASHE is inconclusive. A negative employment effect is found in years where the wage increase for those directly affected by the rise in the NMW was lower than for those employees higher up the wage distribution. It is hard to believe that these employment effects are related to changes in the NMW. Given this, it is also hard to trust the negative employment effects found in years where the NMW uprating did increase wages for those directly affected by more than for those higher up the wage distribution.

The evidence from the local area analysis also fails to find strong evidence of employment effects from the increases in the NMW. All estimates of NMW impacts on employment rates are statistically insignificant, and, once we include control variables, estimates of NMW impacts on employment growth are also insignificant. In similar models we find positive effects of NMW increases on unemployment rates, but once the models weight for the population size in the local areas, these effects drop to zero.

Impact on hours worked

There is little evidence of a consistent impact of increases in the NMW on either basic or total hours. However, there is some evidence that the larger increases in the NMW in 2001 and 2003 may have reduced hours worked amongst some groups.

Using the LFS, the associations between the NMW and basic hours worked for adult women are not statistically significant with the exception of a negative impact of the 2006 uprating. For total hours, significant negative effects of the increases in the NMW in 2001 and 2003 were found in some models.

For adult men, the 2001 and 2003 upratings are associated with a negative impact on basic hours. The evidence on these impacts is reasonably consistent across model specifications. The impacts of the rising NMW on total hours are less strong, although still present in some of the models for 2001, 2003 and 2006.

The local area analysis does not find any evidence of an impact of annual NMW changes on total hours worked.

Conclusions for policy

The main message for policy that emerges from the analysis in this report is that the evidence does not suggest that increases in the NMW have adversely affected employment opportunities for low paid workers. This is in line with previous research on the introduction of and early increases in the NMW.

At the same time, there is evidence to suggest that some of the larger upratings in the NMW may have had small adverse impacts on hours worked for particular groups of low paid workers.

We have identified the impacts of the NMW using a range of models. There is no consistent difference between the findings obtained using individual level data and local area data, nor is there any consistent difference in the results obtained using different groups of comparison workers. This suggests that, to the extent there are spillover effects of the NMW to the employment opportunities of workers paid more than the minimum wage, these are unlikely to be large.

1 Introduction

Much research has been conducted examining the employment impacts of the introduction of the National Minimum Wage (NMW) in Great Britain in 1999 and its initial up-ratings. The general conclusion that emerges is that there was limited if any adverse impact of the NMW on employment in the first few years following its introduction. Since then, in 2001 and over the period 2003-2006, the NMW has risen substantially in excess of average earnings (see Table 1.1). As coverage of the NMW has increased a reassessment of its employment impacts is warranted.

The impact of the NMW on employment is an empirical question. Theory does not provide clear guidance on the direction and magnitude of the impact of wage floors on employment. Textbook economic theory, in which all markets are competitive and workers offer homogeneous units of labour, would suggest that wage floors serve to reduce employment if these are set above the market clearing wage. The argument here is simply that wage floors result in an inward shift of the labour supply curve at the lower end. With downward sloping labour demand this results in higher wages and lower levels of employment. Other theories suggest the story is more complex. For example, efficiency wage models can predict that wage floors serve to boost worker productivity, e.g. by raising incentives to keep a job, resulting in an outward shift of the labour demand curve that partially or more than off-sets the adverse effect on employment from inward shifting supply. To take another example, in monopsony models of the labour market, minimum wage floors may result in higher participation in the labour market (increased supply) and reduced search costs to employers (increased demand), again helping to off-set any adverse effects on employment (Dickens *et al.*, 1999).

Table 1.1 Annual increases in the NMW and average earnings 2000-2006

(per cent)

	Development rate	Adult rate	Average earnings**
October 2000*	6.7	2.8	6.8
October 2001	9.4	10.8	5.0
October 2002	2.9	2.4	3.8
October 2003	5.6	7.1	3.5
October 2004	7.9	7.8	4.5
October 2005	3.7	4.1	3.7
October 2006	4.7	5.9	3.9

* Percentage change on April 1999
** Average Earnings Index excluding bonuses, seasonally adjusted

The empirical evidence on the British NMW to date is summarised in Metcalf (2007). These studies suggest that the introduction of the NMW in 1999 had little impact on employment as measured in terms of individuals' probability of exiting employment (Stewart, 2004a) or

employment growth at the local area level (Stewart, 2002). There is some evidence of a small negative effect on average hours worked (Stewart and Swaffield, 2008), although this is not confirmed for women in the study by Connolly and Gregory (2002). Similarly, studies of the employment effects of NMW up-ratings in 2000 and 2001 (Stewart, 2004b) and 2003 (Dickens and Draca, 2005) suggest that these were negligible. There is some evidence to suggest that the NMW has had small adverse employment effects in sectors of the economy characterised by low pay. Machin *et al.* (2003) find small negative effects of the introduction of the NMW on employment and hours worked in care homes. Analysing regional data to 2004 Experian (2007) find some evidence of a negative effect of the NMW on employment growth in the hospitality and retail industries.

1.1 Aims and scope

The aims of this study are to examine the impacts on employment of low paid workers of the 2001-2006 up-ratings to the NMW, particularly the more recent of these, addressing the following questions:

- To what extent did the up-ratings to the NMW impact on employment and hours worked for low paid workers?
- Were some groups of low paid workers affected more by these up-ratings than others?
- Is there any evidence that the up-ratings to the NMW affected the employment prospects of workers paid above the NMW?

To this end we evaluate the effects of recent changes in the NMW on job retention and job entry for those most likely to be affected by these changes. We evaluate the effects of the NMW on changes in hours worked, where hours worked refers to total hours worked (rather than hours worked per person) capturing the effects of the NMW on both the numbers of people in work and hours worked per head. We also examine the impact of the NMW on the rate of employment and unemployment.

The majority of low paid people in the UK are female and it is well-established that labour supply decisions are gender-specific. We look at the impacts of the NMW on men and women separately. We also explore the effects of the NMW on employment for other groups of low paid workers: young people and people with low level or no educational qualifications.

In estimating the impacts of the NMW on those groups that are likely to be directly affected by it, we check whether our estimates depend on the particular group of low paid workers used to establish identification. This allows us to comment on the extent to which the NMW appears to be affecting workers who are paid more than the NMW.

1.2 Our approach

To estimate the effects on employment and hours worked of recent NMW up-ratings, we can in principle adopt directly the methodology used in studies of the introduction of the NMW and early up-ratings (e.g. Stewart, 2004b; Dickens and Draca, 2005). These studies typically use a difference-in-differences approach to identification. For the purposes of evaluating the effects of recent increases in the NMW, we are concerned about the validity of the assumptions this approach involves. Depending on how it is implemented, the concerns are that over the extended period since its introduction there are likely to have been developments other than the NMW affecting the low pay labour market, and that there may be lagged employment responses to changes in the NMW. A separate concern is that the NMW might affect groups in the labour market whose pay is not directly affected by the NMW.

There is unlikely to be a single best method for identifying the employment and hours worked effects of recent increases in the NMW. In order to build up a robust picture of policy impacts our approach is to use complementary methods of analysis, each of which has its particular strengths and weaknesses in terms of the validity of the underlying identifying assumptions. We evaluate the impact of the NMW on individuals' transition probabilities in the labour market over different time horizons, capturing immediate and lagged NMW effects, using double difference methods where possible as well as single difference methods. When using the double difference we difference over a relatively short time dimension to reduce the risk of biases from other developments affecting low paid workers. We compare the results obtained by double differencing with those achieved by single differencing, which are less prone to the biases that may arise from lagged NMW effects. Control groups of low paid workers are selected at different distances from the NMW to assess the extent to which the NMW has impacted upon other groups and to assess the robustness of the estimated impact on those directly affected by the NMW. We derive results from both the Labour Force Survey (LFS) and the Annual Survey of Hours and Earnings (ASHE), as is standard practice. In addition to the analysis at the individual level we undertake complementary analysis at a more aggregate level, exploiting the variation in the pay distribution across different geographical areas (Riley and Young, 2001; Stewart, 2002; Experian, 2007). A number of identification issues are more easily handled within the aggregated framework, including the way in which we can control for other developments in low pay labour markets and our ability to take into account potential spillover effects from the NMW.

1.3 Report overview

The next section discusses further a number of identification issues, which are particularly relevant to the analysis of the employment impacts of the recent NMW up-ratings, and provides details of the methodology we use. Section 3 reviews the individual level and local area level data. With the LFS there is the issue of how to measure pay and small sample sizes. With the ASHE there are a number of sample discontinuities that are problematic. We also

discuss issues around the level of geographical disaggregation for the local labour market analysis. Section 4 reports our results divided into three main parts: results from analysis of longitudinal LFS records; results from analysis of longitudinal ASHE records; results from analysis of local labour markets. A final section brings together our findings and offers some conclusions.

2 Methodology

Our general approach to addressing the objectives of the research is to adapt the models used in studies of early NMW up-ratings to deal with a number of specific identification issues and to undertake complementary analysis at both the individual and local area level. Here we first discuss the identification issues that motivate our modelling strategy. Next we set out details of the models we estimate and discuss how these identify the effects of recent NMW up-ratings.

2.1 Identifications issues

The majority of evidence on the employment and hours worked impacts of NMW comes from analysis of individual transitions in the labour market and most studies adopt a difference-in-differences approach to identification. Individuals are allocated to treatment (those affected by the NMW) and control (those not affected by the NMW) groups based on their position in the wage distribution compared to the NMW. The time period over which differences in outcomes between these two groups are compared is chosen to include a period before the policy intervention (the introduction or up-rating of the NMW) and a period after. The policy effect is then measured as the change in outcomes over time for the treatment group less the change in outcomes over the same period of time for the control group. Sometimes, rather than uniform, the effect of the NMW is assumed to be proportional to the distance of an individual's wage to the minimum. Another approach that has been adopted is to analyse changes in employment at the local area or regional level using variation in the "bite" of the NMW that arises from the geographical variation in the pay distribution. Including a period before the policy intervention this method is in essence similar to the standard differences-in-differences approach. Importantly, the key identifying assumptions in the majority of studies are twofold. First, outcomes for the control group are assumed independent of the NMW. Second, changes in outcomes over time, other than those attributable to the NMW, are assumed common across the treated and the controls. To the extent that they are not, it is assumed that any differences over time that are unrelated to the NMW can be taken into account by including additional control variables in the analysis. We discuss each of these assumptions in turn.

The first assumption is problematic if there are spillovers from the NMW to those in the wage bracket directly above the NMW, the group of individuals typically used as the control group. If this group is affected by the policy intervention the estimated policy effect will be biased. Given concerns that as the NMW has been rising more quickly than average earnings it is increasingly impacting on employers' behaviour (Low Pay Commission, 2007) and may be associated with greater spillovers to other low paid employees not covered by the NMW than was previously thought (Dickens and Manning, 2006), we need to allow for this possibility. In our analysis of individual labour market outcomes we do this by estimating the effect of the NMW on workers who are directly affected using several control groups drawn from further

up the wage distribution. The drawback is that workers more distant from the NMW, i.e. higher paid workers, are less likely to be comparable to minimum wage workers. In the local area analysis of employment and unemployment rates spillovers are automatically taken into account. This is because the impact estimate includes the effect of the NMW on those directly affected by it as well as those indirectly affected by it.

The second assumption is problematic because there are many factors that are likely to have changed the low paid end of the labour market since the NMW was first introduced. These include numerous changes in welfare-to-work policy and the strong inflow of workers from the A8 to low paid occupations since EU enlargement in spring 2004. Failure to account for these developments could lead the difference-in-difference estimator to attribute to the NMW changes in low-paid employment that arise for these other reasons. This is difficult to deal with in analyses of individual level data, but can be incorporated within our local area level analysis, where we test the sensitivity of our results to the inclusion of controls for A8 migration and skill structure. Further, we avoid conditioning our results on the period before the introduction of the NMW, relying instead on marginal changes in the NMW over shorter time periods to identify NMW effects. We expect marginal changes in the NMW are less likely to coincide with other changes in welfare-to-work policy.

The second assumption is also invalid when there are lagged employment effects from previous NMW up-ratings. To illustrate this, assume that we estimate the effect of the 2004 NMW up-rating on individual employment transitions by comparing these for a treatment and control group in the 6 months after the October 2004 up-rating. To control for the usual difference observed between these two groups we net off the difference in employment transitions in the 6 months before the October 2004 up-rating. But, suppose the 2003 up-rating in the NMW were dampening employment prospects for low paid workers at this time (for example, because it takes a while for employers to adjust their workforce), such that we were netting off more than the “usual” difference in employment transitions between the treatment and control groups. The estimated effect of the 2004 up-rating would be biased upwards; if the effect were negative the magnitude of this effect would be biased downwards. Similar identification problems arise if in anticipation of the policy change employers change their demand for labour, or workers change their effective supply of labour in advance of policy implementation. These issues of timing complicate identification of the appropriate time period to use in the analysis. Due to the frequency of NMW up-ratings we cannot assume that it is possible to disentangle the lagged effects of one up-rating from the short term effects of the subsequent up-rating. Given these concerns we estimate the effects of the NMW by comparing directly outcomes for the treated against those for a control group, without netting off the usual difference between these groups. The assumption here is that the treatment and control groups are sufficiently similar so that the average difference between them is negligible – absent interference from the NMW. We also look at the impacts of the NMW over different time horizons (6 and 12 months) to check whether there are lags in the way these occur. Within the local area analysis we include current and lagged indicators of policy to allow for delayed impacts of the NMW.

Separately, but related to the issue of lagged NMW effects, there may be a degree of sample selection bias arising from repeated up-ratings to the NMW. For example, low paid individuals who are in employment between April and September 2004 and who are likely to see an increase in their wages as a result of the increase in the NMW in October 2004 (the group of individuals we would allocate to a treatment group and follow up after October 2004 to assess the impact of the October 2004 up-rating) are employed despite the increase in the NMW in October 2003. If the October 2003 up-rating in any way reduced employment of low paid workers, then this affects the sample we have for analysis of the October 2004 up-rating. We do not model sample selection, but suggest that the measured impacts of individual NMW up-ratings are not necessarily directly comparable. Sample selection is less likely to be a problem when looking at longer term impacts of the NMW using longitudinal data on individuals. However, we find the ASHE data is unsuitable for such analysis due to measurement problems and sample discontinuities, as discussed below.

2.2 Difference-in-differences estimates for longitudinal data

The difference-in-differences methodology we use is similar to that in Stewart (2004a, b), Stewart and Swaffield (2008), but most similar to Dickens and Draca (2005). The treatment group is defined as those paid below the new level of the NMW at time *t*, before it is enforced, and the comparison group is defined as those individuals paid within some range above the new NMW. Outcomes for these individuals are then compared at time *t+1*, at which point some individuals are observed when the new NMW is in place and others are observed before the new NMW is in place (note *t* does not refer to calendar time, but rather the point at which individuals are allocated to treatment and comparison groups). The policy effect is then measured as the change in outcomes (measured at *t+1*) over time for the treatment group less the change in outcomes over the same period of time for the comparison group.

More formally, to estimate the effect of a change in the minimum wage on employment (transitions and hours worked) we use as the basis of our analysis the model specified in equation (2.2.1).

$$
\begin{aligned}
y_{t+1} = \; & f\{X_{it}^{'}\beta + \overline{\alpha} + \overline{\gamma} d_{t+1} \\
& + (\alpha_1 + \gamma_1 d_{t+1}) \cdot I(w_{it} < NMW_t) \\
& + (\alpha_2 + \gamma_2 d_{t+1}) \cdot I(NMW_t \le w_{it} < NMW_t^*) \cdot G \\
& + (\alpha_3 + \gamma_3 d_{t+1}) \cdot I(NMW_t^* \le w_{it} < NMW_t^*(1+c_1)) \cdot G \\
& + (\alpha_5 + \gamma_5 d_{t+1}) \cdot I(NMW_t^*(1+c_1+c_2) \le w_{it})\}
\end{aligned}
\qquad (2.2.1)
$$

In equation (2.2.1) y_{t+1} is the outcome measure of interest, X_{it} is a matrix of control variables, d_{t+1} is a dummy variable indicating whether the new minimum wage is in place at time *t+1*, $I(.)$ is an indicator function taking the value 1 if the condition specified in brackets is true and 0 otherwise, w_{it} is the wage for individual *i* at time *t*, NMW_t is the minimum wage at time *t*, NMW_t^* is the new minimum wage, which is not yet in place at time *t*, and $c_2 > c_1 > 0$, which determine the width and position of the comparison group. The remainder are parameters to be estimated.

With this specification γ_2 captures the effect of the minimum wage up-rating on those whose wages are directly affected by it. The parameter γ_3 captures the effect of the NMW on those workers who receive wages marginally above the new NMW and who therefore are most likely to experience potential spillover effects. The size of this group is determined by the value set for c_1. The control group against which we benchmark the two treatment groups (those directly and those indirectly affected by the NMW up-rating) is made up of individuals whose wages are within a distance of c_1 to c_2 of the new NMW. Again the size of the group is determined by the values of these cut-off points. Here we report estimates of γ_2 where either $c_1 = 0$ and $c_2 = 0.1$ or $c_1 = 0.1$ and $c_2 = 0.2$. In the first case, where α_3 and γ_3 are by necessity set to zero, we assume there are no or limited spillover effects to those paid above the new minimum wage and the comparison group is chosen to be those paid within 10 per cent of the new minimum wage. In the second case the comparison group is chosen to be those paid between 10 and 20 per cent above the new minimum wage, allowing for potential spillover effects of the NMW. The α_n capture time-invariant differences in outcomes between groups (note there are no parameters with subscript *n=4*; this denotes the control group against which others are benchmarked).

We use this model to estimate the impact of changes in the NMW on job retention, job entry and hours worked. Following previous work, when looking at job retention or the probability of remaining in employment, the dependent variable is the probability of being in employment at time *t+1* conditional upon being in work at time *t*. Looking at entry to work the outcome measure becomes the probability that an individual was out of work at time *t* before the change in the NMW, given that the individual is in work at time *t+1*. In the case of employment entry the wage in equation (2.2.1) is by necessity measured at time *t+1* and we allocate all individuals paid at or below the new minimum wage to the treatment group. In both the job retention and job entry models we use a logit specification. When the outcome measure is the change in working hours we specify a linear functional form.

We report estimates where $G = 1$, in which case the model produces the standard difference-in-differences estimator, and where $G = \ln(NMW_t^* / w_{it})$, using a wage gap estimator where the wage gap is defined in percentage terms. The latter facilitates the analysis of multiple

NMW up-ratings where we need to account for the differences in size of individual up-ratings and where these occur over a longer time period where inflation is likely to make the comparison of wage gaps measured in absolute terms difficult.

Typically, the model in equation (2.2.1) has been used to evaluate the impact of the introduction of or a particular change in the NMW. Here we use this model to assess all annual up-ratings of the NMW that occurred from October 2001 to October 2006, similar in spirit to the analysis in Abowd *et al.* (1999). In doing this we estimate simultaneously equation (2.2.1) for each of these 6 up-ratings, imposing common β across equations and assuming that errors are randomly distributed across all observations in the pooled sample. In this way we allow for differential impacts of the individual up-ratings and retain a relatively flexible structure, allowing for time-varying differences between the treatment and comparison groups against which to benchmark the difference in outcomes following each up-rating, i.e. we have α_n^k where *k*=2001-2006 denotes the particular up-rating. We also estimate models where we constrain the coefficients capturing the effect of minimum wage changes to be equal, i.e. we impose $\gamma_2^k = \gamma_2 \forall k$. In these models we use the wage gap estimator so that differences in the magnitude of the individual up-ratings are automatically accounted for. One benefit of this pooled estimate is that we maximise the sample size of the treatment and comparison groups. We report pooled estimates where group differences are time-varying, just as in the models where we allow the different up-ratings to have different impacts. We also report pooled estimates where the difference between the treatment and comparison groups is fixed over time, i.e. where $\alpha_2^k = \alpha_2 \forall k$. This is a more restrictive assumption, but increases the degrees of freedom available.

The NMW is increased from the start of October of each year 2001 to 2006. For each up-rating individuals are allocated to treatment and comparison groups based on their wage at time *t*, where *t* is observed between October in the year before the up-rating to September in the year of the up-rating. For example, for the NMW up-rating in October 2004, individuals are allocated to treatment and comparison groups on the basis of their wages observed from October 2003 to September 2004. We then observe individuals' outcomes at time *t+1*, six months later. This splits the sample roughly in half between those who are observed at *t+1* when the new minimum is yet to be enforced and those who are observed at *t+1* when the new minimum is in place. For example, for the NMW up-rating in October 2004, individuals with *t* between October 2003 and March 2004 will have *t+1* between April 2004 and September 2004 (before 1 October 2004) and d_{t+1}=0. Individuals with *t* between April 2004 and September 2004 will have *t+1* between October 2004 and March 2005 (after 1 October 2004) and d_{t+1}=1.

The choice of six month transitions or changes follows Dickens and Draca (2005), who study the impact of the NMW up-rating in October 2003 on employment entry and exit. It is dictated by the want to have some observations that are unaffected by the new minimum wage at both *t* and *t+1* and that are likely to be unaffected by the previous change in the minimum

wage, which we can use to measure the 'normal' difference between the treatment and comparison groups. This points to a key weakness of the identification strategy used here, as discussed in the previous section. It seems plausible that outcomes for low paid workers (the treatment group in particular) may be affected by the previous NMW up-rating, given the high frequency with which these occur[1], such that we are unable to capture the 'normal' difference between groups. The single difference estimates discussed in the next section address these concerns.

2.3 Single difference estimates for longitudinal data

To analyse the impacts of NMW up-ratings on longer (12 month) labour market transitions and as a check on the difference-in-differences results we compare outcomes between a treatment and comparison group, controlling for other differences between the groups that are unrelated to the NMW with standard regression techniques. We refer to this as "single difference" estimates in the results sections. The single difference or direct comparison estimator can be described within the framework set out in equation (2.1.1) by setting $d_{t+1} = 1 \; \forall t$. In this case we cannot separately estimate α_n and γ_n. Instead, $(\alpha_2 + \gamma_2)$ captures the NMW effect on the treated and the identifying assumption is that α_2 is on average zero, given the other controlling factors included in the equation. If indeed the true α_2 is approximately zero, and we think that previous NMW up-ratings bias the estimate of α_2, and hence of γ_2, then this single difference approach is to be preferred to the difference-in-differences approach.

We use the direct comparison approach to estimate NMW impacts using both the LFS and the ASHE. Using the LFS we allocate individuals to treatment and comparison groups based on their wage between April and September in the year of the up-rating, which occurs in October. We then observe individuals' outcomes six months later, between October and March of the following year, and 12 months later, between April and September of the following year. Using the ASHE we allocate individuals to treatment and comparison groups based on their wage in April in the year of the up-rating. We then observe individuals' outcomes in April of the year that follows.

2.4 Local area estimates

Our second approach to identifying the impacts of the NMW on economic outcomes exploits the wage variation we see across different areas of Britain (see for example; Stewart, 2002, for the UK, and Card, 1992, Card and Krueger, 1995, Neumark and Wascher, 1992 and more

[1] Indeed, this is what the results in Stewart and Swaffield (2008) would imply for changes in hours worked. They generally find that the 'lagged' effects of the introduction of the NMW on hours

recently Kiel, Robertson and Symons, 2008 for the US). Since wage rates vary widely across different areas, the NMW will have a larger "bite" or impact on wages in some areas than others. For example, only 0.06% of employees in Oxford were affected by the 2007 increase in the NMW compared to 18% in Berwick-on-Tweed. In those areas that experience the larger "bite" we may expect to see larger changes in employment, unemployment or hours of work. We use pooled cross section-time series data to create a panel of local areas for the period 1999-2007. We then estimate specifications of the following form:

$$E_{it} = \beta_0 + \beta_1 Min_{it} + \beta_2 X_{it} + YearDummies + AreaFixedEffects + u_{it},$$

$$i = Area,\ t = Year \qquad (2.4.1)$$

Where E_{it} is our economic variable of interest in area i in year t (e.g. the employment rate), Min_{it} is our measure of the "bite" of the minimum wage in area i and year t. We use a number of measures here but the most common is the Kaitz index; which measures the ratio of the NMW to median wages in the area. We also use the proportion of employees affected by changes in the NMW. X_{it} is a set of control variables. The minimum wage treatment effect then varies both across areas and over time. Year dummies allow for aggregate employment differences from year to year. The area dummies allow for different average employment rates across the areas.

Note that identification of the minimum wage effects here rely on wage variation across regions, since the NMW is fixed each year for all regions. This is in contrast to the US studies that examine employment effects across States. In that context, the US minimum wage varies across States, permitting better identification of any economic effects. We have to be reasonably sure that employment is not changing across regions in a way that is related to the wage distribution, but not as a consequence of the NMW. For example, it may well be that over the sample period 2001 to 2006, characterised by strong economic growth, employment in low wage areas grew faster than in high wage areas for reasons unrelated to the NMW (see discussion in section 2.1). This would then induce a positive correlation between employment and our minimum wage variable. To this end it is important to include a set of control variables that may explain employment rates; such as the skill composition of the workforce in the area. Also, the fixed effects will help to pick up average employment differences across areas, but not the growth in employment.

Consequently, we also estimate the model in first differences. Here we model the change in the employment rate on the change in the minimum wage effects.

$$\Delta E_{it} = \beta_0 + \beta_1 \Delta Min_{it} + \beta_2 \Delta X_{it} + YearDummies + u_{it},$$

$$i = Area,\ t = Year \qquad (2.4.2)$$

---

worked were more obvious than the 'initial' effects.

Note that here the area fixed effects are differenced out. However, we also estimate specifications which include the area fixed effects in the first differenced model. This then allows each area to have a differential growth rate in employment over the period of analysis. This provides quite a strong test of the role of the minimum wage as we are then controlling for the average growth rate of employment in each area.

We estimate this specification over the period 2000-2007.[2] We use different measures for the dependent variable; the employment rate, the unemployment rate, the (log) total hours of work in the area. We also estimate this equation separately for all adults (over 22 years), male adults, female adults and those aged 18-21. We exclude individuals who are over retirement age.

[2] We drop the period prior to introduction to the NMW since this is in some sense a different question and we don't want to conflate these effects with the impact of subsequent changes in the NMW. Also, we drop 1999 since the NMW was set in April of that year.

3 Data

Our analysis of the NMW and individual labour market transitions relies on LFS and ASHE data. Here we discuss issues with these data that are particularly important for our analysis. We also discuss the data we use for the local labour market analysis.

3.1 Longitudinal LFS records

The LFS and ASHE have been used extensively to investigate the impacts of the introduction and early up-ratings of the NMW. In comparison to these studies the difference-in-differences strategy for identification used here relies on the availability of relatively high frequency observations on individuals' employment and hours worked. The LFS is better suited to this task than the ASHE, where outcomes are observed at annual intervals. We use matched LFS cross sections waves 1 and 3, and matched cross sections waves 1 and 5. Matches are made using the code provided for adding further variables to the longitudinal data provided by the ONS. We drop observations with inconsistent sex and age profiles across waves. We do not use the published longitudinal data, which requires individuals to respond at all waves.[3]

3.1.1 Measuring hourly pay

An accurate measure of hourly pay is important for identification of the group that is directly affected by the NMW. It is also important to be able to identify individuals who receive low rates of pay above the NMW, who may function in the analysis either as a control group or as a group for whom we might see spillover effects from the NMW. There are two sources of information in the LFS: derived hourly pay (HOURPAY) and the hourly rate variable (HRRATE). We use HRRATE as we are not constrained by the unavailability of HRRATE before the introduction of the NMW. As discussed in Dickens and Manning (2004) and Dickens and Draca (2005), who advocate the use of HRRATE rather than HOURPAY, there is significant measurement error in derived hourly pay. The problem with HOURPAY is illustrated in Figures 3.1.1 and 3.1.2, which show wage densities when wages are measured by HRRATE and HOURPAY respectively. Using the HRRATE variable there is a clear spike in the density of wages around the NMW and compliance appears high (Figure 3.1.1). Using the HOURPAY measure there is a much smaller and less defined spike around the NMW, suggesting either measurement error or non-compliance (Figure 3.1.2). Given the HRRATE distribution non-compliance seems an unlikely explanation for the distribution of HOURPAY and HRRATE seems much to be preferred for our purposes.

[3] This means we do not have a set of weights to use in estimation. Experience suggests that the weights designed for the LFS longitudinal data, which correct for attrition bias (see Clarke and Tate, 1999), can significantly change our results when cell sizes are small (but we do not report results relying on small cell sizes). It is reasonable to assume that attrition bias is less of an issue for the 3 quarter longitudinal data.

Figure 3.1.1 Wage distribution, LFS hourly rate (HRRATE)

Figure 3.1.2 Wage distribution, LFS derived hourly pay (HOURPAY)

A main concern with HRRATE is its limited coverage. Approximately 2 in 5 respondents to the income questions have non-missing values for HRRATE. However, coverage is better at the lower end of the pay distribution because those actually paid by the hour, and therefore

likely to report an hourly rate, are typically lower paid individuals. Indeed, as illustrated in Table 3.1.1, based on sample sizes for the relevant part of the wage distribution there appears to be little reason to prefer the use of HOURPAY to HRRATE.

3.1.2 Sample sizes

Sample sizes for the treatment and control groups in the job retention and hours worked models estimated here are illustrated in Table 3.1.1. Total sample sizes, including those who fall outside the treatment and comparison groups, are significantly larger and sufficient in most cases to estimate many of the parameters of the model in equation (2.2.1). But, in terms of estimating with precision the key parameters of interest, it is the number of observations in each of the treatment and comparison groups that is important, both before and after the change in the minimum wage.

Table 3.1.1 Sample sizes (LFS matched cross sections, waves 1-3)

	Adult females				Adult males				18-21 year olds			
NMW up-rating year	*Treatment group*		*Comparison group*		*Treatment group*		*Comparison group*		*Treatment group*		*Comparison group*	
	before	*after*	*before*	*after*	*before*	*after*	*before*	*after*	*before*	*after*	*before*	*after*
	Derived hourly pay											
2001	392	346	397	419	114	99	152	148	34	38	72	73
2002	109	99	374	399	29	36	113	125	9	14	35	58
2003	290	227	434	413	110	62	182	147	19	30	77	48
2004	316	294	414	404	110	86	199	171	44	43	69	57
2005	222	223	353	402	85	69	162	156	12	17	44	58
2006	204	214	360	366	71	77	148	179	19	27	48	42
	Hourly rate											
2001	503	411	427	458	107	100	128	122	23	15	80	67
2002	313	245	400	443	53	58	82	117	11	22	19	19
2003	347	304	445	369	90	65	116	93	13	12	34	31
2004	447	361	410	443	136	91	160	161	34	20	85	76
2005	409	366	379	435	132	102	131	141	20	15	23	33
2006	435	370	342	363	100	109	138	135	10	14	23	25

Notes: Treatment group includes individuals paid at or above the existing NMW, but below the new NMW; Comparison group includes those paid 0-10% above the new NMW; Wage used to define treatment and comparison groups is either HOURPAY (derived hourly pay) or HRRATE (hourly rate); 'before' and 'after' are with reference to the particular up-rating.

The incidence of low pay is greatest among women and for adult females sample sizes are adequate, typically lying around 300-400 for all relevant groups. Sample sizes for adult males are rather small, often less than 100, and for youths for individual up-ratings in most instances inadequate, with treatment groups sizes around and below 30. A useful rule of thumb to bear in mind is that statistics based on cell sizes below 30 are sufficiently unreliable that they are not published as National Statistics. For this reason we do not report estimates of the effect of individual NMW up-ratings for youths. We do report pooled estimates, which are based on

observations from all up-ratings 2001-2006. In this instance the number of youth observations is sufficient. However, given the relatively small sample sizes involved even in this exercise, and for adult males where we look at single up-ratings, we suggest that results may be regarded as significant if they have p-values of 10 per cent or less rather than the conventional 5 per cent or less.

3.2 Longitudinal ASHE records

The ASHE longitudinal data has a number of problems. Between 2001 and 2007 there are a number of observations with the same code on the identifier variable. These are removed from the data before running the analysis. We also dropped observations where the recorded age was less than 16 and more than 58 for women and 63 for men, thus ensuring that the sample included only people of working age one year after the initial observation. We also dropped employees whose recorded pay in a particular year was affected by absence, young people on junior or trainee rates, employees whose hours of work recorded as zero or greater than 97 per week and anyone whose hourly pay was recorded at lower than £1 per hour.

We are also limited when defining our employment retention variable in that what we measure is whether an employee remains in the ASHE data conditional on being in the data one year earlier. Whilst all these individuals will be employees, the data by no means captures all employees. The data is based on a one per cent sample of employees, but the sample size in most years is roughly 160,000 employees, which translates to 16 million employees in the population. The official LFS-based estimates of employees in employment are between 24 and 25 million during the period we are interested in, so our data excludes a third of all employees. The ASHE data is largely sampled from PAYE records and hence it is precisely the low paid that are under-recorded in the data.

If the employees in the data are the same in each year, or at least if employment retention rates in the data are in line with national figures then this is not a big problem. However, comparing annual employment retention estimates with those from the LFS indicates that employment retention according to ASHE at just over 70 per cent in most years is considerably lower than that recorded in the longitudinal LFS at over 90 per cent. Essentially the ASHE data cannot distinguish between individuals who are not employees (and here this may include the self-employed) and individuals who are employees but are not recorded in the ASHE data. In other words, if someone exits the ASHE sample, it does not necessarily mean they exit employment. Because we are using exits from the ASHE sample to measure exits from employment, this means our estimates may be biased in a way that is related to non-inclusion of employees in the ASHE sample.

3.2.1 Sample discontinuities

There are also some discontinuities in data collection over the period of interest. In 2004 supplementary information was included in the ASHE methodology. For continuity purposes

we do not include this information in our analysis. In 2006 special arrangements were treated as an extra sampling stratum and occupations were coded using an automatic coding tool. The former may have an impact on the nature of the achieved sample, and the latter may lead to some different occupation classifications, but in both cases it is not possible to predict how this will affect our estimates.

The most serious discontinuity for longitudinal analysis was a 20 per cent cut in the sample size in 2007. This means that our estimates of the 2006 uprating will be based on just 80 per cent of responses compared with other years. This magnifies the problem outlined above where it is not possible to identify whether an individual is an employee in two consecutive years, because they may be in the part of the sample that has been cut. The sample cut was based on industry classifications and there is no way of knowing which employees in 2006 were excluded for these reasons in 2007. A similar problem arises in 2008. The reinstatement of the full sample is planned for 2009-2011.

3.2.2 Sample sizes

The resulting sample sizes for the treatment and control groups are reported in Table 3.2.1. As with the LFS analysis, total sample sizes include those who fall outside the treatment and comparison groups. These are included to improve the precision of the estimates of other parameters of the model.

Table 3.2.1 Sample sizes from the ASHE longitudinal panel

	Adult females		Adult males		18-21 year olds	
NMW up-rating year	***Treatment group***	***Comparison group***	***Treatment group***	***Comparison group***	***Treatment group***	***Comparison group***
2001	2667	3409	959	1277	63	467
2002	1410	3631	475	1230	27	151
2003	2163	3586	845	1361	68	179
2004	3426	4789	1368	2119	139	537
2005	3189	3378	1418	2156	214	364
2006	3728	4897	1747	2402	263	383

The figures, in line with those reported for the LFS, indicate a higher incidence of low pay for females. Sample sizes in each group are large for adults, but for youths the numbers are considerably smaller, particularly in the treatment groups between 2001 and 2003. In 2002 the sample of youths is particularly small, falling below 30 for the treatment group. In these cases our estimates will be relatively imprecise.

3.3 Local area data

We construct local area level data on employment and hours worked for different sub-groups from the LFS micro data. Local area measures of the NMW (its bite or coverage) are derived from ASHE. The LFS equivalent is less useful because of small cell size problems with the LFS wage data. Data on other local area characteristics included as additional controls in the local labour market analysis (e.g. the skill composition of the population and the magnitude of A8 migration) are constructed from the LFS and the Workers Registration Scheme data. Here we describe the geographical unit of analysis that we adopt and the choice of data frequency.

3.3.1 Geographical unit of analysis

Local area labour market data can be derived either on an "area of residence" basis or on an "area of work" basis. Statistics from ASHE and LFS can be derived on either basis from 2002 onwards. For years before 2002 ASHE statistics can only be compiled by "area of work" and LFS statistics can only be compiled by "area of residence". Ideally the local area unit of analysis is such that there is sufficient overlap between area of residence and of work, approximating some concept of a local labour market. This is for two reasons. First, across local labour markets the variation in employment that relates to variation in a measure of the toughness of the NMW is more likely to identify the effects of the NMW on equilibrium employment, rather than movements along a labour supply or labour demand equation alone. Second, we need to use data that specifically relate to "area of residence" (e.g. the employment rate, which is simply not defined on an "area of work" basis) and data that relates to "area of work" (e.g. NMW toughness, which we need to obtain from ASHE). In the extreme case, if there is no overlap between area of residence and work, we might end up relating the toughness of the NMW in one place to the employment rate in another.

With these things in mind, Travel-to-Work-Areas (TTWA) are the obvious units of analysis. The main defining characteristics of these are that at least 75% of working residents work in the area and that at least 75% of workers are resident in the area. However, the data items we require are generally unavailable at TTWA level. Most of the data we require is available at the Local Authority (LA) level, which is an administrative geography bearing little resemblance to TTWAs or local labour markets.[4] Table 3.3.1 illustrates the TTWA properties of LAs, based on analysis of LFS respondents 2002-7. We find that only 11% of LAs are such that both 75% of workers in the area also live there and 75% of working residents are employed in the area. The low paid/low skilled tend to commute less so if we look at these workers alone more LAs fulfil the TTWA criterion. For example, looking at workers with no

[4] LAs are comprised of 32 London Boroughs and the City of London, 36 Metropolitan Districts in England, 239 Non-Metropolitan Districts in England, 46 Unitary Authorities in England, 22 Unitary Authorities in Wales, and 32 Council Areas in Scotland, giving a total of 408 LA areas in Great Britain. The two-tier structure of governance in the 239 English Non-Metropolitan Districts means these can be aggregated into 34 counties. Other local authority units operate a single tier administration and do not aggregate into counties. Boundary changes occur so LA units are not constant over time. However, the majority of change occurs before 1997 (Standard Names and Codes (SNAC) Database 2006 Edition, National Statistics).

qualifications, 34% of LAs fulfil the TTWA criterion (i.e. 75% of workers without qualifications live in the area and 75% of employed residents without qualifications work in the area). Concentrating on the 25% of workers who are paid the least, almost half of LAs have TTWA properties (using HRRATE to define pay). But, this is still only half, and several of the variables used in the analysis are based on all individuals in the area.

Table 3.3.1 Residence/workplace properties of different local area units

	Worker groups				
Local Area definition	All workers	Workers with NVQ1/O-level qualifications or less (incl no qualifications)	Workers with no qualifications	Workers in the lowest quartile of the pay distribution (HOURPAY)	Workers in the lowest quartile of the pay distribution (HRRATE)
	% of local areas where at least three quarters of local workers are residents and at least three quarters of employed residents work locally				
407 LAs*	11	20	34	38	49
172 Counties/LAs/London	25	39	59	60	72
208 LA groupings	35	56	76	83	85
135 LA groupings	64	85	92	94	95
	% of workers living in local areas where at least three quarters of local workers are residents and at least three quarters of employed residents work locally				
407 LAs*	12	22	38	40	56
172 Counties/LAs/London	40	58	70	75	84
208 LA groupings	51	70	87	93	94
135 LA groupings	75	93	98	98	98

* Isles of Scilly Local Authority is missing from the LFS sample
Source: Labour Force Survey
Notes: 208 and 135 LA groupings are constructed by aggregating LAs according to most represented TTWA (see text for details).

Grouping LAs into their respective counties, where this applies, and grouping together the London Boroughs, we end up with 172 geographical units. Now (see Table 3.3.1), 25% of LAs fulfil the TTWA criterion applied to all workers. Because those units that appear as local labour markets now tend to be bigger, these areas correspond to 40% of workers in GB. If we look at workers that fall in the lowest quartile of the pay distribution on the HRRATE variable 84% of these workers in GB live in "local labour markets".

The TTWA definition is of course somewhat arbitrary, however it is useful in illustrating some of the discrepancies between "areas of work" and "areas of residence". It is also useful in grouping together LAs to achieve a set of local areas that better resemble local labour markets. We group together LAs on the basis of the TTWA in which most employed residents live in 2006. For example, all workers resident in Greenwich, all workers resident in Lewisham, and 89% of workers resident in Hounslow are also resident in London TTWA, so

these LAs get grouped together, along with many other London Boroughs. Doing this we end up with 208 areas where 35% of these appear as local labour markets, using the TTWA criterion applied to all workers, corresponding to 51% of workers in GB.[5] So, we end up with a better set of geographical units than the 172 County/London Borough aggregation illustrated in Table 3.3.1 in the sense that we have more units, and more of these have TTWA properties.

The classification of LAs into 135 groups that appears in the last row of Table 3.3.1 is constructed by further grouping together the initial 208 groupings on the basis of the second most highly represented TTWA in the area (for those units that did not satisfy the TTWA criterion). Of the 208 units we start with, 28 do not aggregate further on this basis. Of the 135 groups 64% appear as local labour markets, using the TTWA definition applied to all workers, corresponding to 75% of workers in GB. For low paid and unskilled workers local labour market coverage also improves. Further, 90% of these 135 local areas are such that at least two thirds of working residents work in the area and that at least two thirds of workers are resident in the area, corresponding to 97% of workers in GB. We report results using both the 135 area grouping and the 208 area grouping constructed here.

3.3.2 Data frequency

We construct local area labour market data for LAs and the LA groupings discussed above for 6 month data periods, defined as April-September and October-March each year. These time periods fit well with the NMW up-ratings, which fall either in April or October. An alternative is to use quarterly data, but this worsens the small cell size problems we have.

Table 3.3.2 Small cell sizes (by local area definition and time frequency)

	135 areas (21 periods - 2835 cells):		**208 areas (21 periods - 4368 cells):**	
	1 quarter (< 10,000)	2 quarters (< 16,000)	1 quarter (< 10,000)	2 quarters (< 16,000)
Working age	19	3	30	5
Working age adults	34	5	55	13
Female adults	194	107	336	224
Male adults	103	82	221	158

Source: Labour Force Survey

[5] Not all LAs are such that the vast majority of resident workers live in a particular TTWA, although this is usually the case. On average, across LAs, 85% of resident workers within a particular LA live in a particular TTWA, but values as low as 26% for the "main" TTWA are observed. The grouping of LAs into 208 units does not take into account that of workers actually working in the LA, many may reside elsewhere. But, taking this into account by grouping together the 208 units on the basis of the TTWA in which most workers working in the area actually live, we do not get very different results.

Table 3.3.2 shows the number of observations (area-time observations) lost when we use the quarterly data and when we use the semi-annual data. ONS guidance on level variables is that these are at least 10,000 for 1 quarter averages and 6,000 for 4 quarter averages. A reasonable interpretation of this is that this means 2 quarter averages should be at least 8,000 (or 16,000 for sums across quarters).

Looking at all working age adults with the 135 area grouping we lose 5 area time cells with a half year measure compared with 34 with the quarterly measure. For the 208 area grouping we lose 13 observations with the semi-annual data compared with 55 observations with the quarterly data. If we split working age adults by gender then we lose many more observations - for women the quarterly data almost doubles the number of lost area-time cells in comparison to the 2-quarter data using the 135 area grouping. Of course the single quarter data automatically doubles the number of cells (without considering small cell sizes), but this increase in time frequency occurs at the expense of less variation across geographical units.

4 Results

4.1 Analysis using individual level LFS records

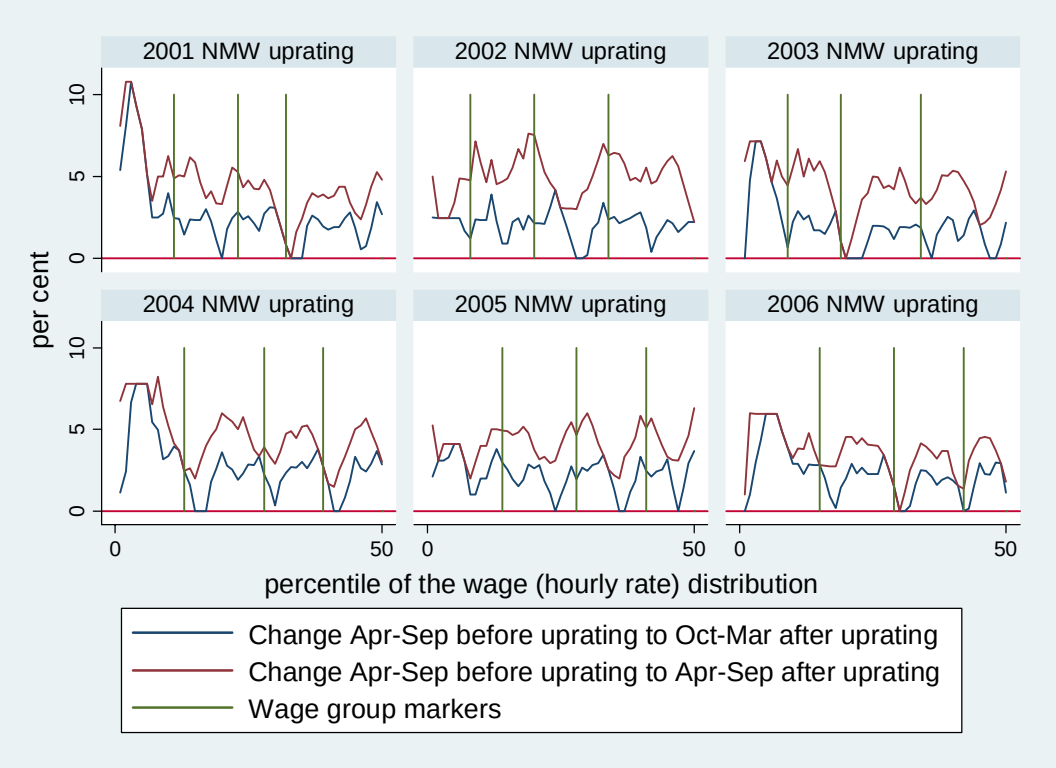
Estimates of the impact of annual increases in the NMW on job retention rates, job entry and changes in hours worked based on the LFS are shown in Tables 4.1.1-10 in the Tables Annex to section 4.1. Before we discuss these we look at what happened to wages following the changes in the NMW. This gives us some idea of whether the NMW is doing what we expect (increasing wages for the lowest paid). It is easier to attribute any measured change in employment to the NMW if indeed it is accompanied by an observable change in wages. This also gives us an idea of the extent of spillovers to wages further up the distribution (our control groups).

4.1.1 Wages

In the LFS wages are recorded at waves 1 and 5 of the survey. Wages are not recorded at wave 3 and hence we cannot estimate the change in earnings associated with the NMW using the longitudinal LFS in the way that we do with employment retention and hours worked. Instead we look at wage growth by percentile of the wage distribution over a period spanning the change in the NMW using the LFS cross sections. This is illustrated in Figure 4.1.1 for each up-rating from 2001 to 2006, which shows wage growth from April-September in the year of the up-rating to the 6 months after the October up-rating and to the 6 months from April-September of the following year, capturing 6 and 12 month changes in the wage distribution spanning the NMW up-rating. Figure 4.1.1 also marks the points in the HRRATE distribution that distinguish our treatment and control groups. Wages below the first marker are less than the new NMW. Workers in this part of the wage distribution include our treatment group. Wages between the first and second markers are 0-10 per cent above the new NMW and wages between the second and third markers are 10-20 per cent above the new NMW. Workers in either of these parts of the wage distribution function as the benchmarking group. Wage growth is shown for percentiles up to the median of the HRRATE distribution.

Looking at 6 month changes in the wage distribution in Figure 4.1.1 (wage growth from April-September in the year of the up-rating to October-March after the up-rating) it seems quite clear that wage growth was strongest in the lower percentiles of the wage distribution, with the exception of 2002 when the NMW rose by less than average earnings. Indeed, the magnitude of the difference between 6 month wage growth for the lowest paid (whose wages should increase following an NMW up-rating) and wage growth for other groups reflects what we know about growth in the NMW versus growth in average earnings. The difference between growth in the NMW and in average earnings (October to October) was 5.8pp in 2001, -1.4pp in 2002, 3.6pp in 2003, 3.3pp in 2004, 0.4pp in 2005 and 2.0pp in 2006. In Figure 4.1.1 the rise in wages for the lowest paid between April-September and October-March is clearly largest in 2001, with substantial increases in 2003 and 2004 as well.

Figure 4.1.1 Wage growth, by percentile of the wage distribution



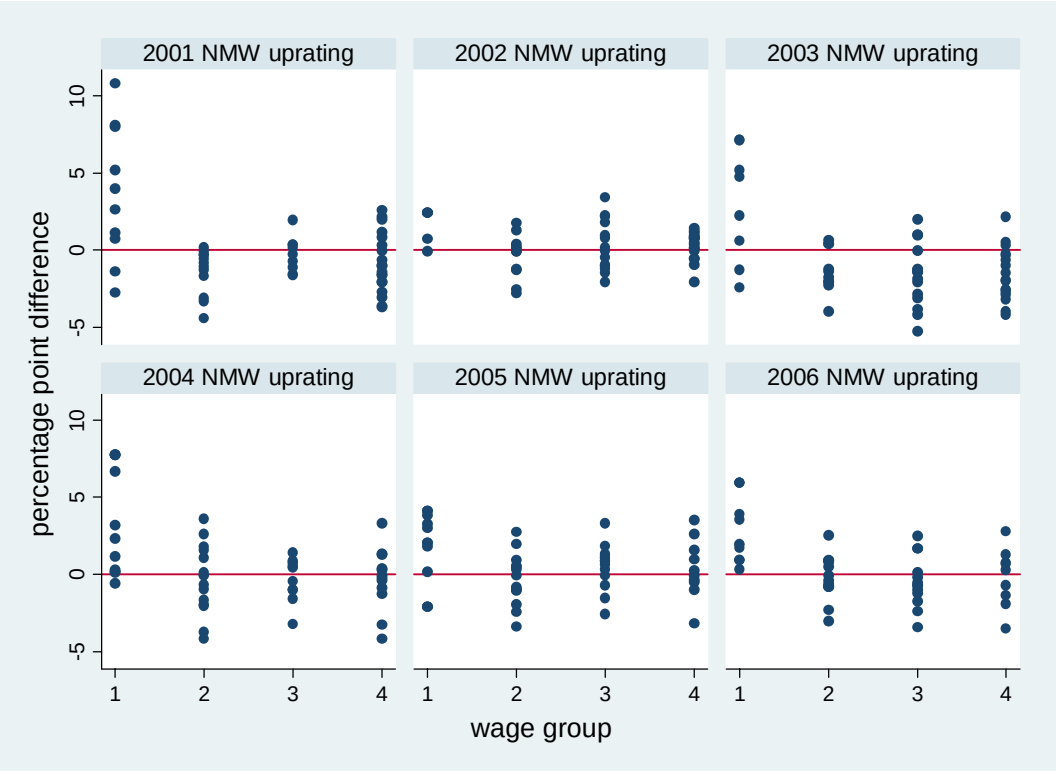
Notes: Wage percentiles up to the median of the HRRATE distribution. Wage group markers divide the charts into four ranges by the hourly rate in Apr-Sep before the up-rating; Starting from the left and moving towards the right these are: less than the new NMW, 0-10% above the new NMW, 10-20% above the new NMW, and at least 20% above new NMW.

Looking at 12 month changes in the wage distribution in Figure 4.1.1 (wage growth from April-September in the year of the up-rating to April-September the following year) there appears to be some element of catching up in wages for those paid above the NMW in the second half of the year that follows the up-rating of the NMW, while wages are stagnant amongst the lowest paid. The difference between 12 month wage growth for workers in the lowest percentiles of the wage distribution and for other workers paid below median wages is much less stark than the difference in 6 month wage growth for these groups. It seems likely that this catch-up reflects the timing of pay awards rather than strong wage spillovers from the NMW. First, if we were to interpret this catching up as wage spillovers we would have to believe that these occur all the way up to the median of the hourly rate distribution. Second, although the difference in wage growth for the lowest paid workers and workers in the benchmarking groups is less stark when viewed over 12 months rather than 6 months, the differentials are generally still clear and reflect the increase in the NMW above average earnings. Having said this, for those paid above the NMW, wage growth does seem to be marginally stronger for those paid closest to the minimum in the years where the NMW rose a lot. This may be suggestive of small wage-spillovers from the NMW.

Figure 4.1.2 plots wage growth from April-September before the NMW up-rating to October-March after the NMW up-rating *less* wage growth from October-March to April-September before the NMW up-rating for the lower half of the wage distribution, where wage percentiles

are grouped into four categories according to whether wages are less than the new NMW, 0-10 per cent above the new NMW, 10-20 per cent above the new NMW, or at least 20% above the new NMW. The differences in wage growth are broadly centred around zero for all groups paid more than the NMW (groups 2-4) and are generally centred above zero for those paid less than the NMW (group 1). This lends some credence to the identification strategy used in the difference-in-differences models that we estimate, both because we see stronger wage growth where we expect to see it and because there does not seem to be much suggestion that there are spillovers (at least in terms of wages) to low paid workers paid above the NMW. However, to the extent these differences in wage growth between groups reflect the differential timing of pay awards, there is some question about the validity of the difference-in-differences methodology. The single-difference estimates may be less affected by this problem.

Figure 4.1.2 Wage growth Apr-Sep before NMW up-rating to Oct-Mar after NMW up-rating *less* wage growth Oct-Mar to Apr-Sep before NMW up-rating, by wage group



Notes: Wage percentiles up to the median of the HRRATE distribution grouped by the hourly rate in Apr-Sep before the up-rating: 1 = at or above existing NMW, but less than the new NMW; 2 = 0-10% above new NMW; 3 = 10-20% above new NMW; 4 = at least 20% above new NMW.

4.1.2 Job retention

Estimates of the impacts of the increase in the minimum wage in each year 2001 to 2006 on job retention (the probability of being in employment, conditional on being in employment 6 or 12 months ago) are reported in Tables 4.1.1-3. Table 4.1.1 gives difference-in-difference

estimates of NMW impacts on 6 month job retention. Single-difference estimates of the same are reported in Table 4.1.2. Single-difference estimates of NMW impacts on 12 month job retention are reported in Table 4.1.3. Results are shown separately for men and women. We report pooled estimates for all up-ratings 2001-2006 for men, women and for 18-21 year olds, where we impose common effects across years. This boosts sample sizes. All pooled models use the wage gap estimator, to account for differences in the magnitude of the individual up-ratings. The first set of columns in each table reports the basic difference-in-difference (or single difference) estimate where the policy indicator is a simple dummy variable. The second set of columns reports estimates using the wage-gap estimator.

Looking first at the results for adult women, the difference-in-differences estimates in Table 4.1.1 using those paid between 0 and 10 per cent above the minimum wage as the comparison group, we find that none of the up-ratings from 2001 to 2006 have a statistically significant impact on job retention for adult females. Using those paid between 10 and 20 per cent above the minimum wage as the comparison group, the difference-in-differences estimate of the effect of the 2003 up-rating is positive and statistically significant, suggesting that the increase in the NMW at that time increased the probability of remaining in employment over 6 month periods by 2.3-2.8 percentage points for adult women (once we control for differences between the treatment and comparison groups) depending on whether we look at the dummy or wage gap model. This echoes the findings in Dickens and Draca (2005). This positive impact in 2003 carries through to the pooled estimates, where the results that benchmark the treatment group against those paid 10-20 per cent above the NMW suggest that on average the annual increases in the NMW raised the probability of remaining in employment by 1 percentage point per annum for adult women. In contrast, the single difference estimates in Table 4.1.2, using those paid 0-10 per cent above the NMW as the comparison group, suggest that on average the annual increases in the NMW reduced the probability of remaining in employment by 0.8 percentage point per annum for adult women. This effect arises mainly because of a reduction in the probability of remaining in employment of 2.1 percentage points for adult women, associated with the sharp increase in the NMW in 2001. These effects are not statistically significant when we look at job retention over 12 months (once we include controls), see Table 4.1.3.

For adult men, the difference-in-differences estimates in Table 4.1.1 using the dummy variable model suggest the NMW increase in 2002 raised employment retention over 6 month periods for adult men by around 2.5 percentage points. It seems unlikely that this has anything to do with the NMW, which changed very little in 2002. Further to this, the effect is not significant in the models that use the wage gap policy indicator. We also find a positive effect on male employment retention of the increase in the NMW in 2006, but only in the dummy model against the 0-10 per cent comparison group. There are no other statistically significant effects of the NMW on male job retention in Table 4.1.1, once we control for the differences between groups. The pooled estimates suggest the NMW reduced 6 month job retention for male adults by a little less than 1 percentage point per annum, but these effects are not statistically significant. However, in the single difference models in Table 4.1.2, the pooled

estimates suggest this effect is statistically significant and of a similar magnitude. These effects arise because of the negative effects on employment retention associated with the larger up-ratings in 2001, 2003, 2004 and 2006. Once controls are included, it is only the effect of the 2003 up-rating that is statistically significant on its own, and only in the wage gap model benchmarking against the group paid 10-20 per cent above the NMW. These adverse effects on employment retention for adult men remain in the 12 month models, shown in Table 4.1.3. Once controls are included it is only the pooled estimate benchmarked against the group paid up to 10 per cent above the NMW that remains statistically significant. This effect suggests that on average annual increases in the NMW reduced 12 month job retention for adult men by 1.4 percentage points. This effect is statistically significant at the 10 per cent level. Note that the estimated marginal effects on male job retention of the NMW rises in 2001 and 2003 are consistently negative across all the models in Tables 4.1.1-3. This consistency is not apparent for any other individual up-ratings for men and for any individual up-ratings for women.

For 18-21 year olds we find some evidence of larger and statistically significant (at the 10 per cent level once controls are included) reductions in 6 month job retention associated with the annual increases in the NMW (see Tables 4.1.1 and 4.1.2). There do not appear to be any effects on 12 month job retention.

We do not find systematic differences in the results obtained using individuals paid 0-10 per cent above the new NMW as the controls in comparison to the results obtained using individuals paid 10-20 per cent above the new NMW as the controls.

4.1.3 Job entry

Table 4.1.4 gives estimates of the effects of the increase in the minimum wage in each year 2001 to 2006 on the probability of being outside employment six months ago, conditional on being in employment today. All estimates use the dummy policy indicator. We do not report models using the wage gap policy indicator because the treatment group is selected after the NMW is in place, when the wage gap is typically zero. For this same reason we do not report pooled estimates, which need to take into account the variation in magnitude of the different up-ratings as given by the wage gap indicator. Sample sizes in these models are smaller than for the job retention models, as there are fewer people paid exactly at the NMW than there are people paid between the existing and new minima. For this reason we do not report the results for men, where the observations are insufficient to allow us to control for the differences between the treatment and comparison groups.

Looking at the results for adult women, most of the marginal effects on job entry of the various up-ratings are insignificant. The exceptions are the 2003 and 2004 up-ratings. Once controls are included the difference-in-differences model using the 0-10 per cent comparison group suggests the 2003 up-rating was associated with a reduction in entry to low paid employment of 1.8 percentage points. The difference-in-differences model using the 10-20 per cent comparison group suggests the 2004 up-rating was associated with a reduction in

entry to low paid employment of 2.3 percentage points. These effects are not statistically significant in the single difference models.

4.1.4 Hours worked

Estimates of the effects on 6 and 12 month changes in basic hours worked per week of the 2001 to 2006 changes in the NMW are reported in Tables 4.1.5-7. The sample is restricted to those in employment at time *t*. For individuals who are out of work at time *t+1*, hours are coded as zero at that time. Thus the estimates capture the effect of NMW changes on hours worked per week that occur either through changes in working hours for those who remain in employment or through changes in employment status. Most of the NMW impact estimates on 6 month changes in basic hours worked for adult females are insignificant (Tables 4.1.5 and 4.1.6). The exception is the 2006 up-rating which may have been associated with a reduction in basic hours worked for adult women of 1-1.5 hours per week. This is what we find when we compare those directly affected by changes in the NMW to those paid 10-20 above the NMW, regardless of the policy indicator or differencing method. In the single difference dummy models in Table 4.1.6 we find statistically significant reductions in changes in hours worked of around 1 hour per week associated with the 2001 and 2005 up-ratings. Looking at 12 month changes in basic hours worked in Table 4.1.7, the dummy models suggest the 2005 up-rating may have reduced basic hours worked by a small amount. These effects are not statistically significant in the wage gap models. None of the pooled estimates of changes in basic hours worked for adult women in Tables 4.1.5-7 are significant once we control for differences between the treated and the comparison groups.

The results for 6 month changes in basic hours worked for male adults in Tables 4.1.5-6 consistently suggest that the large NMW up-ratings in 2001 and 2003 were associated with negative impacts on hours worked. Looking at the models that include additional controls, these effects range from a reduction of 2.3-5.3 hours per week with the NMW increase in 2001 and a reduction of 3.2-5.8 hours per week with the NMW increase in 2003. Looking at changes in basic hours worked over 12 month periods in Table 4.1.7, we find similar results for the 2001 and 2003 up-ratings, although the negative impacts on basic hours worked in 2003 are no longer statistically significant in the models that use the 0-10 per cent comparison group. These effects drive the statistically significant reductions in basic hours worked for male adults in the pooled models in Tables 4.1.5-7. These effects are much smaller than for the up-ratings in 2001 and 2003 alone, as they are averaged over 6 years and as the effects in other years are generally negligible. We find some evidence of a negative impact of the 2006 up-rating on basic hours worked for male adults in the 12 month change models in Table 4.1.7.

None of the impacts of the NMW up-ratings on changes in basic hours worked for 18-21 year olds are significant.

Tables 4.1.8-10 show estimates of the effects on 6 and 12 month changes in total hours worked per week of the 2001 to 2006 changes in the NMW. Total hours include basic hours

and paid overtime. For women we find some evidence of a negative impact on total hours worked associated with the up-rating to the NMW in 2003. In the 6 month changes difference-in-differences models in Table 4.1.8 this impact is statistically significant only in the dummy model using the 0-10 per cent comparison group and only at the 10 per cent level. In the 6 month changes single difference models in Table 4.1.9 the results are more consistent and show a reduction in total hours worked for adult women of around 2 hours in 2003. Looking at 12 month changes in total hours worked for adult women in Table 4.1.10 these effects remain significant and greater in magnitude when we benchmark against the 0-10 per cent group. This results in a statistically significant negative impact on 12 month changes in total hours worked for adult women in the pooled wage gap model using the 0-10 per cent comparison group. In the dummy models for 12 month changes in hours worked we find some evidence of negative impacts on hours worked for adult women associated with the 2001 and 2005 up-ratings.

For male adults the difference-in-differences models of 6 month changes in total hours worked yield statistically insignificant results (Table 4.1.8). The positive and significant impacts in 2002 are unlikely to have much to do with the NMW. Ignoring the results for male adults in 2002 in Table 4.1.8, the single difference models of 6 month changes in total hours worked for men generally yield statistically insignificant results. There is some evidence of a reduction in total hours worked for men associated with the NMW up-rating in 2003. These results are statistically significant in the wage gap model only and only at the 10 per cent level. In Table 4.1.10, the impacts on 12 month changes in total hours worked associated with the 2001 and 2006 up-ratings are negative and significant in several models, mimicking the findings for 12 month changes in basic hours. However, our evidence on the impact of the NMW on total hours worked is generally less strong than our evidence on the impact of the NMW on basic hours worked.[6]

None of the impacts of the NMW up-ratings on changes in total hours worked for 18-21 year olds are significant.

We do not find systematic differences in the results obtained using individuals paid 0-10 per cent above the new NMW as the controls in comparison to the results obtained using individuals paid 10-20 per cent above the new NMW as the controls.

4.2 Analysis using individual level ASHE records

Estimates of the impact of annual increases in the NMW on job retention rates, changes in basic and total hours based on ASHE data are shown in tables 4.2.2 to 4.2.4 in the Tables

[6] Note that Stewart and Swaffield (2008), using the LFS, find that hours adjustments associated with the introduction of the NMW occurred mostly on basic hours rather than total hours. Our findings are consistent with these results.

Annex to section 4.2. Because of the discontinuities and measurement problems described previously, we restrict our attention to analysis of annual transitions in ASHE, rather than transitions over several years. Before considering these estimates we look at the impact of changes in the NMW on wages according to the ASHE data. This allows us to assess whether we can attribute any employment or hours worked effects to increases in the NMW that have led to changes in wages. It also allows us to assess the extent of any wage spillovers.

4.2.1 Wages

We measure wage growth for the sample of employees that remain as employees in the subsequent year in the sample. Here we report median wage growth for adults because average wage growth figures can be distorted by some reporting of very large increases in pay. The average figures are much larger than the median figures but broadly speaking display the same characteristics.

First, in most years the increase in median pay for the treatment group is broadly in line with the increase in the NMW. In most years it is also in excess of the increase in median pay for both comparison groups. There are two exceptions in 2002 and 2005.

In 2002, the increase in the NMW was modest, below that of average earnings increases. According to the ASHE data in this year median pay growth for the treatment group is below that of both our comparison groups. Thus any impact on employment retention or hours observed in this year is unlikely to be related to the change in pay caused by the increase in the NMW.

In 2005, the increase in the NMW was slightly above the increase in average earnings, 4.1 per cent compared with 3.7 per cent. Here the ASHE data indicate only small differences between the increase in median pay for the treatment group and both our comparison groups. Again here it would be difficult to attribute large employment retention or hours impacts to the increase in wages caused by the increase in the NMW.

Table 4.2.1 Annual percentage increase in median pay by treatment and comparison group and by year

NMW up-rating year	*Treatment group*	*0-10% Comparison group*	*10-20% Comparison group*	*All*
2001	10.8	6.3	4.8	4.4
2002	4.9	7.6	7.4	4.5
2003	8.7	6.6	5.0	4.1
2004	8.5	6.9	6.0	5.8
2005	5.0	5.6	5.3	4.1
2006	5.9	4.5	4.1	4.2

In other years, the increase in the NMW exceeded the increase in average earnings and we observe the growth in median pay in the treatment group higher than the growth in both comparison groups. In these years, median pay growth is also higher in the group originally paid up to 10 per cent above the NMW than the group paid 10 to 20 per cent above the NMW. Furthermore, the growth in the median for this latter group is similar to the growth in median pay for the whole pay distribution in 2001, 2004 and 2006. Only in 2003 do we find median pay growth for employees earning 10-20 per cent above the NMW to be above the whole economy growth at 5.0 per cent compared to 4.1 per cent. This suggests that in most years the date does not identify any clear evidence of wage spillovers at this point in the pay distribution.

4.2.2 Job retention

Estimates of the impacts of the increase in the minimum wage in each year 2001 to 2006 on job retention (in this case the probability of being in the ASHE sample, conditional on being in the sample 12 months ago) are reported in Table 4.2.2. Results are shown separately for adult women, adult men and 18-21 year-olds. The first four columns report single difference estimates where the policy indicator is a simple dummy variable. The last four columns report estimates using the wage-gap estimator.

Looking first at the results for adult women, the estimates are negative and typically strongly significant. This is true even in the years where the increase in the NMW has not resulted in any differences in wage growth between the treatment group and the comparison groups. Given this, it seems unlikely that the negative employment retention estimates in 2002 and 2005 are related to increases in the NMW. If this is the case, then it is also hard to argue that the negative estimates in other years are related to increases in the NMW.

These results are in contrast to the single difference LFS results which for women were largely not statistically significant. One of the reasons for such findings may be in the nature of the outcome variable being considered. We are trying to capture employment retention, but what we actually measure is being in the ASHE sample. Following our discussions in section 3.2 it is plausible then that being in the ASHE sample is negatively correlated with wage rates twelve months earlier and our estimates, even when we include a wide range of control variables, are picking up an effect related to non-response to the survey. If this is the case then using the ASHE in this way is not appropriate for estimating the impact of increases in the NMW. Ideally a difference-in-difference methodology would allow such differences to be netted out of the analysis. However, with long periods between the comparison period, prior to the introduction of the NMW in 1999, and our period of interest 2001 to 2006, we do not feel such an approach is valid particularly given the range of other influences on employment retention that we could not identify in the ASHE data.

Comparing with previous research, our results for 2001 are not dissimilar. Note this is the largest percentage uprating and here, once we include our control variables, estimates are not significant with a comparison group up to 10 per cent above the NMW and only significant at

the five per cent level in the wage gap model against the comparison group 10 to 20 per cent above the NMW. The estimates for later years are generally much larger and significant, and for the reasons discussed above it is difficult to attribute these findings to the rising NMW.

For adult men, the estimates, when we include our control variables, are often smaller and much less significant. However, we again have large significant negative estimates in 2002, which coincides with a year when median pay growth for the treatment group was lower than that for the control groups. In line with the discussions above, it does not seem plausible that these estimates are related to the impact of the increase in the NMW.

In contrast with the estimates for adult women, for adult men we find large significant negative estimates in 2001 when compared against the comparison group 10 to 20 per cent above the NMW, but smaller and not significant estimates against the comparison group up to 10 per cent above the NMW.

For 18-21 year-olds the estimates are often large and negative, but with limited sample sizes are never significant at conventional levels of significance.

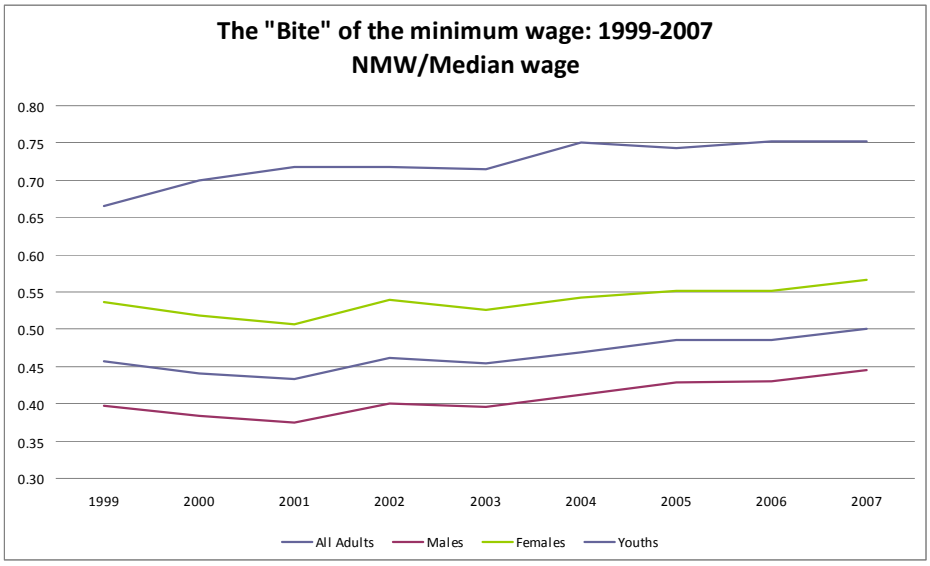
4.2.3 Hours worked

The same concerns about the employment retention estimates hold for the estimates of changes in hours worked. Tables 4.2.2 and 4.2.3 present estimates of the effects on annual changes in basic and total hours worked per week. In the same way as we did for the LFS estimates, the sample is restricted to those in employment at time t, and for those not in the sample at time t+1 hours are coded as zero at that time. Thus the estimates capture both employment changes and changes in hours for those that remain in employment. Not surprisingly, the estimates broadly mirror the employment retention estimates.

4.3 Local labour market analysis

In this section we examine the impact of the NMW from a spatial perspective. As outlined above in Section 2.3 we utilise the regional variation in the impact of the NMW to examine effects on labour market outcomes. A key requirement for identification here is sufficient variation in the impact of the NMW. We require this variation over time but also across the different areas. The figure 4.3.1 below shows the average "bite" of the NMW, as measured by the Kaitz index, for each year from 1999-2007.[7] This figure shows that, on introduction, the NMW was set at approximately 45% of median pay of adult workers. The value then eroded somewhat over time, as the NMW failed to keep pace with real wage growth. Since about 2003 we have seen a steady increase in the Kaitz index, as increases in the NMW were set above real increases in median wages. Results are also reported for male and female adults and for young workers. We see that the "bite" is higher for female workers and lower for males, but that the trend over time is similar. The "bite" for young workers is much higher; with the applicable NMW currently about 75% of the median wage. This is despite the fact that the youth rate is significantly lower than the adult rate.

Figure 4.3.1



Source: Annual Survey of Hours and Earnings

Let us now examine the variation of this across the different areas. Figure 4.3.2 presents the distribution of the Kaitz index for each year. We see that there is significant variation in the impact of the NMW across areas. While the avarage Kaitz index was in the range 45-50%, we see some areas where this is below 35% and some areas where this is a high as 70%. It is this variation that provides us with our identification of any potential minimum wage effects.

- [7] Note these values correspond to the Spring/Summer of each year when we have employment data from the LFS, and not the October each year.

Figure 4.3.2

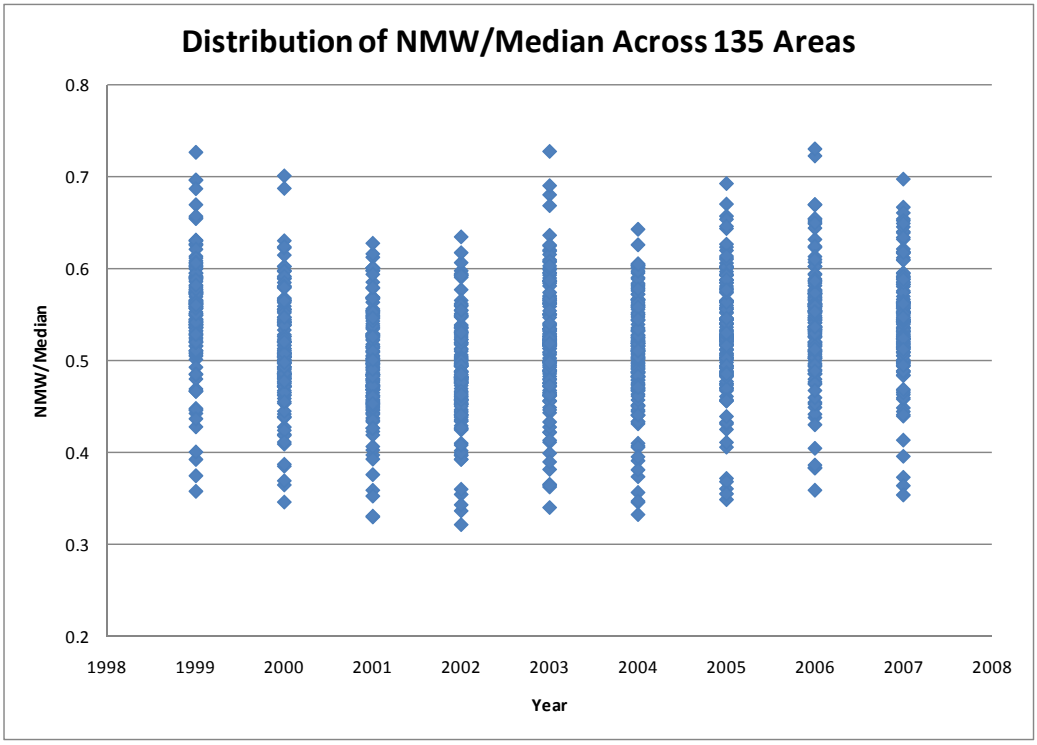
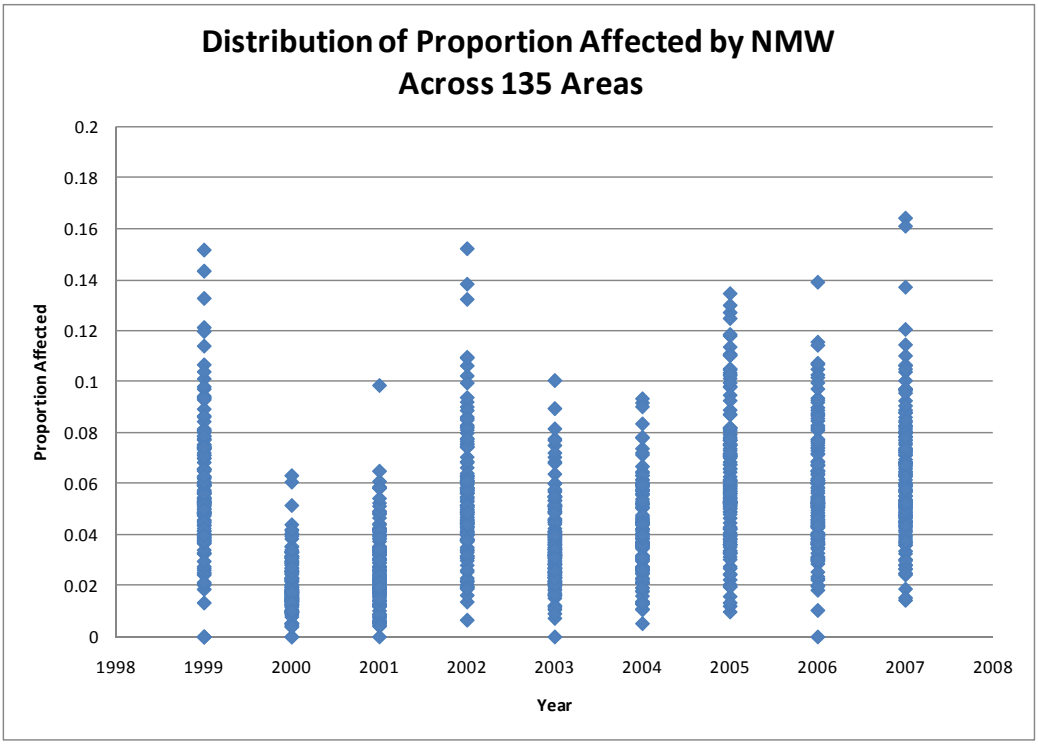


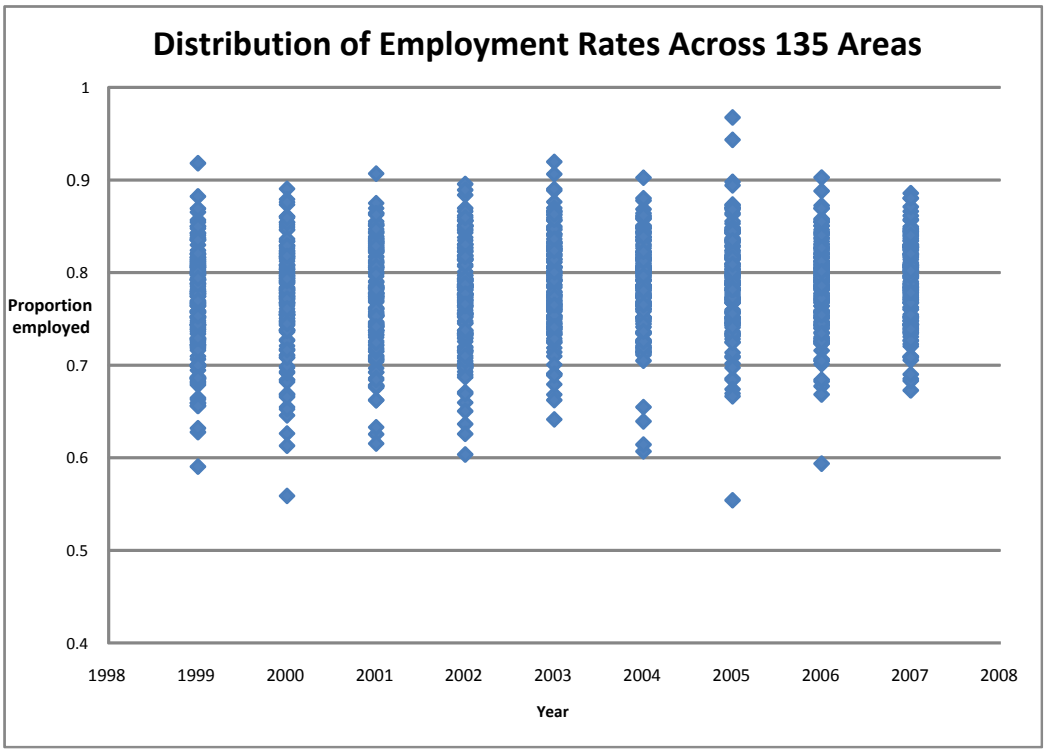
Figure 4.3.3 then presents an alternative measure of the "bite"; the proportion of workers affected by each increase in the NMW. This proportion varies from year to year. In the period from 2004-07 about 6% of workers on average are affected by each uprating. However, again we see significant variation across these areas. With some areas having less than 1% of workers affected, and some with over 10% of workers affected.

Figure 4.3.3



Finally, we also need to establish that our dependent variables contain enough variation over the areas. Figure 4.3.4 presents the employment rate for each area and year. While the average employment rate increases slightly over this period from about 76% to nearly 79% we see considerable variation across the areas, although there does appear to be a compression in employment rates in later years. Some areas have employment rates between 60% and 70%, while some have rates close to 90%.

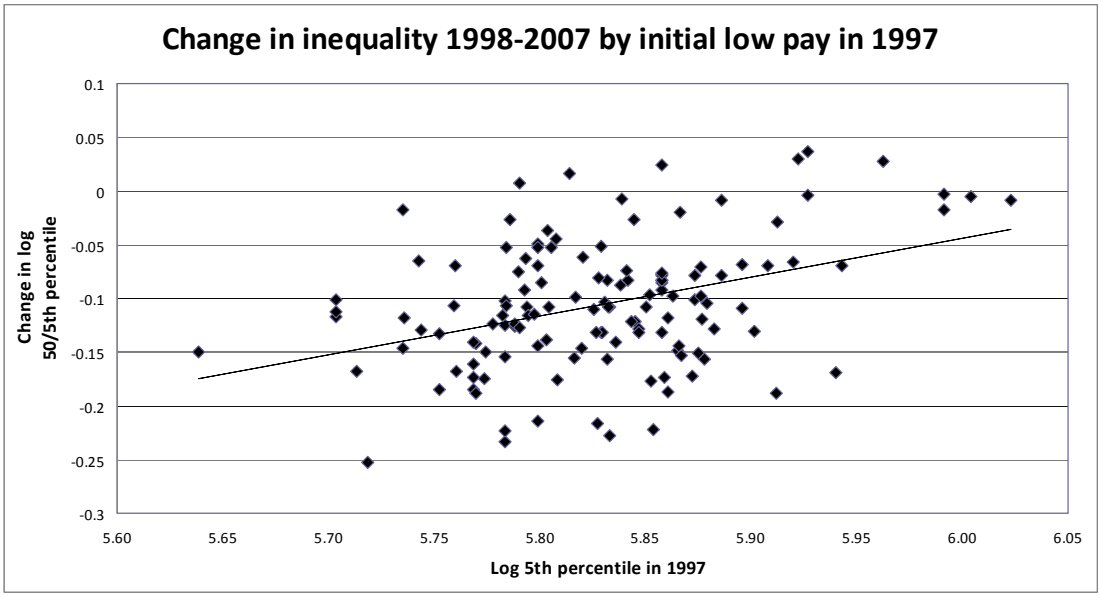
Figure 4.3.4



4.3.1 Wages

Now let us turn to our results. Before we estimate the impact on employment and other labour market outcomes we first need to establish that the NMW had an effect on the wages of individuals. Using our area level panel data we would expect to see that those regions most affected by the NMW would have the largest changes in wage inequality. Figure 4.3.5 below presents the change in wage inequality between 1998 and 2007, as measured by the change in the log of the ratio of the 50th percentile to the 5th percentile hourly earnings. This is plotted against the initial level of low pay in the area in 1997, as measured by the 5th percentile of hourly earnings. We see that those areas with the lowest wages prior to the introduction of the NMW experience the greatest falls in inequality over the period 1998 to 2007. It seems highly likely that the NMW is compressing wages at the bottom of the distribution and this impact is greater in low wage areas.

Figure 4.3.5: Changes in inequality against initial low pay



However, in order to establish this more robustly we estimate the following regression specification:

$$\log(50th/5th)_{it} = \beta_0 + \beta_1 \Pr opBelow_{it-1} + \beta_2 X_{it} + YearDummies + AreaFixedEffects + u_{it}$$

$$i = Area\ ,\ t = Year \qquad (4.3.1)$$

The dependent variable is the (log) ratio of the 50th percentile hourly wage to the 5th percentile hourly wage. This provides a measure of the degree of inequality in the bottom half of the wage distribution within each area. The $PropBelow_{i,t-1}$ is then measuring the "bite" of the NMW in each region. We also include a set of controls and Year and Area fixed effects. The estimated coefficients are presented in Table 4.3.1 (see Appendix) for all adult workers. Results are presented for various specifications. We also present results in columns 4-6 which weight by the population in the area. We see that a larger proportion of workers affected by the increases in the NMW over this period is associated with a negative impact on inequality. In most specifications the estimated impact of the NMW is significant. If we take the coefficient in column 2 of -0.237, this implies that a 10% point increase in the proportion of affected workers will reduce the 50/5 ratio by 2.4%. Table 4.3.2 presents the results with the dependent variable now in first differences, but the $PropBelow_{i,t-1}$ still in levels. In the specification where we also include fixed effects, we find the estimated coefficient on $PropBelow_{i,t-1}$ is -0.531. This implies that a 10% point increase in the proportion affected is associated with a 5% lower growth in the 50th/5th percentile ratio. This is quite a large effect of the NMW on pay inequality across areas. Results for young workers (18-21 years) are presented in Tables 4.3.3 and 4.3.4. Again the impacts of the NMW are found to be significant in reducing inequality across these regions.

4.3.2 Employment, Unemployment and Hours

Turning now to our estimates of the impact of the NMW on employment, we estimate equation (2.4.1) above on our area level panel data for both the 135 and 208 area groupings. We report the regression output for the 135 areas in the tables below (see Tables - Section 4.3). The results for the 208 groupings, which are not substantively different, appear in Appendix A4.3. We report a number of different specifications, for all adult workers, adult males, adult females and those aged 18-21 years. Since the areas vary considerably in size, we also report weighted OLS results, using the population as the weighting variable.

Table 4.3.5 reports estimates of the impact of the NMW on the employment rate. The NMW effect is captured using the (log) Kaitz index, which is the ratio of the NMW to the median wage in each area and year. The estimates are in levels and all include year dummies and fixed effects. The year dummies control for aggregate changes in employment that affect all areas the same, the fixed effects control for area differences in the level of employment. Column (1) reports the impact with no other controls. The estimated coefficient of -0.065 implies that a 10% increase in the Kaitz index will reduce the employment rate by 0.65 percentage points. Note, however, that the estimated coefficient is not statistically significant. The second column adds in controls for the share of low qualification and no qualification individuals, and also the share of young workers in the area. The skill share variables are both significant, but the coefficient on the minimum wage remains insignificant and drops in absolute value. The third column adds in a variable that measures the proportion of A8 migrants per head of population following the enlargement of the EU in 2004. We focus on the variation in migration across local areas so this regression is only run on the years 2004-7. The coefficient on the Kaitz index remains insignificant. The next three columns then report the same set of specifications but with weighted OLS, using the population as the weight. The Kaitz remains insignificant in each column and the absolute value of the coefficients has fallen further. These results suggest that the impact of changes in the NMW over the past eight years has had no effect on the employment rate of adult workers. Table A4.3.5 in the Appendix reports the same set of specifications using the 208 area groupings. The conclusions remain essentially the same.

Table 4.3.6 reports the same regressions but now where the equation has been first differenced. The results now tell us about the impact of the changing Kaitz index on employment growth. We now drop the fixed effects (apart from column 4 and 8). The first column, with no controls, gives us a negative coefficient on the (log) Kaitz index of -0.086. This is now significant at the 10% level suggesting some weak evidence that increases in the NMW have reduced employment growth. The results imply that a 10% increase in the Kaitz index (say from 0.45 to 0.5) may have reduced the employment rate by 0.9 percentage points. However, once we add in other controls in columns 2 and 3 for skill shares, etc the effect becomes insignificant. Column 4 then adds in fixed effects to this first differenced specification. This essentially allows each area to have a different growth rate in its employment rates over the period of analysis. Again the estimated coefficient on the NMW

remains insignificant. The final 4 columns then present the weighted results. Note that once we weight the regression, the significant coefficient in column 1 becomes insignificant and smaller in absolute size. These first differenced results do not provide any convincing evidence that the NMW reduced employment over the period 2000-07.

Tables 4.3.7-4.3.10 report the same specifications as above but now separately for males and females.[8] Nothing striking comes out of these results, and the conclusion remains the same of a zero effect on employment rates. Tables 4.3.11 and 4.3.12 then present these specifications for workers aged 18-21 years. We note that the number of observations included in the models of 18-21 year olds is significantly smaller than for other groups, because of small cell sizes. In some specifications we are finding a positive coefficient on the Kaitz index, but overall we find no significant effects from the NMW at all.

Our results so far have failed to find any significant impact on employment rates from the changes in the NMW over the period 2000-07. This is despite some fairly large increases in the NMW over this time period. However, we perhaps need to look at alternative measures of labour market outcomes. Tables 4.3.13 – 4.3.20 report the same set of estimates but now with the unemployment rate in the area as our dependent variable. Note that for all adult workers we do find a positive effect of the Kaitz index on the unemployment rate, and this is significant and robust to the inclusion of control variables. However, once we weight the results the coefficient drops to zero. The first differenced results are also insignificant. The results for males are all essentially insignificant. Those for females look similar to those for all adults; they are positive and significant in the unweighted levels, but zero elsewhere. For young workers we find no significant effect of the NMW on unemployment. Again the results for the 208 areas in Appendix A4.3 are similar to those reported here.

Previous evidence has suggested that while employers may not reduce numbers employed in response to changes in the NMW, they may reduce hours of work. In tables 4.3.21 – 4.3.28 we report estimates of the impact on (log) total hours worked in the area (this is computed as the sum of total weekly hours worked for each individual in employment). We can find no evidence across any of our specifications for these different groups of individuals that total hours have been adversely affected by the NMW. In almost all specifications the log Kaitz index is insignificantly different from zero. This conclusion is echoed in the results across the 208 areas.

The Kaitz index provides just one measure of the "bite" of the NMW in each area. It is possible that other measures will better pick up this "bite". We use as an alternative the proportion of workers below the NMW in April each year prior to its increase in the following October. In Table 4.3.31 we estimate the impact on the employment rate of this proportion below the NMW in the previous year. For example, the proportion below the

[8] Note that since we restrict our sample to those areas that have an average population of at least 16,000 from the LFS and an average cell size of at least 25 from the ASHE data the sample sizes vary somewhat from the results for all adults. For those aged 18-21 years we apply the cut-off of 10,000 for the LFS and 20 for the ASHE data.

October 2004 NMW in April 2004 is associated with employment in Spring/Summer 2005. When we estimate this in first differences (Table 4.3.32) we look at the change in employment between year t and year t-1 against the proportion below in year t-1. For example, the change in employment between Spring/Summer 2004 and 2005 against the proportion below the October 2004 NMW in April 2004. In most specifications we find a positive coefficient on the proportion below variable. This suggests that areas with a larger proportion of affected workers have higher subsequent employment rates. In some of the levels specification we find significant effects of this variable. For example, the coefficient for adult males is 0.242, which implies that an extra 1% of affected workers is associated with a 2% higher employment rate. However, none of the first differenced results are significant.

Overall our results from this spatial analysis of the NMW suggest that it has raised the wages of those at the bottom of the distribution relative to those higher up. This has resulted in a fall in inequality in the bottom half of the wage distribution. In terms of employment outcomes, unemployment and hours we find no strong evidence that the NMW had a harmful effect on individuals' labour market position.[9] These results here are consistent with the findings reported in this paper from individual level estimates and also with a large body of literature assessing the impact of the NMW on employment.[10]

- [9] As a further specification check we also included lagged effects of the NMW. The conclusions from this are not substantively different from the overall conclusion here that the NMW had little significant impact upon employment outcomes for affected workers.
- [10] Dolton, Rosazza and Wadsworth (2008) also report estimates of the impact of the NMW using a spatial analysis. While the broad conclusions of their work are the same as ours, they find significant positive effects on employment. There are a number of differences in approach in their report. They use the full 406 local authorities and they also include the period prior to the introduction of the NMW in their estimation. We have estimated our specifications on the 406 local authorities (which increases the problem of small cell sizes quite significantly) and our results do not change. The difference in findings is likely to be related to their use of periods prior to the introduction of the NMW.

5 Conclusions

This report investigates the impact of the 2001 to 2006 NMW upratings, a period where the NMW has risen substantially in excess of average earnings. Analysis of individual LFS and ASHE data are presented along with local area analysis. Three types of outcome are considered: wages, employment / unemployment and hours worked.

The strongest wage growth was at the bottom of the wage distribution in most years and for those directly affected by increases in the NMW. In 2002, the only year where the NMW increase was below the average earnings increase, wage growth at the bottom of the distribution was lower than higher up.

Evidence on employment is mixed, but overall there is no compelling evidence to indicate that the large NMW rises had an adverse affect on employment. Estimates of the impact on job retention are variable and are different by gender and year and also vary by choice of comparison group and data source.

The LFS analysis produces some negative results on the relationship between NMW rises and job retention for adult women, but there is no systematic pattern. For adult men some negative impacts on employment retention are found, but again most are not statistically significant. Significant impacts tend to coincide with the larger upratings in 2001 and 2003.

For job entry there is no strong consistent evidence of a negative impact.

The local area analysis also fails to find strong evidence of employment effects from the increases in the NMW. The ASHE analysis suggests there were large negative effects on employment in 2002 when the NMW increase had a smaller impact on wages at the bottom of the distribution than higher up the distribution. Given this we find the ASHE results hard to interpret and inconclusive.

For hours worked most of the LFS models yield results that are not statistically significant, but in some cases we find the NMW is associated with a reduction in hours worked. There is some evidence to suggest that the larger upratings in 2001 and 2003 reduced basic hours worked amongst adult males. Overall, there is no evidence of a consistent impact on either basic hours or total hours. Similarly, the local area analysis finds no evidence of NMW impacts on hours worked.

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7 TABLES - SECTION 4.1

Table 4.1.1 NMW effects on 6 month job retention (difference-in-differences estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
				Female adults				
2001	-0.017	-0.027	0.021	0.017	-0.001	-0.005	0.021	0.017
	(0.025)	(0.025)	(0.013)	(0.010)	(0.013)	(0.011)	(0.014)	(0.011)
2002	0.016	0.014	0.003	0.007	0.024	0.021	0.009	0.013
	(0.013)	(0.010)	(0.020)	(0.014)	(0.020)	(0.016)	(0.021)	(0.017)
2003	-0.013	-0.013	0.029***	0.023***	-0.013	-0.011	0.032*	0.028**
	(0.022)	(0.019)	(0.009)	(0.007)	(0.016)	(0.013)	(0.017)	(0.014)
2004	0.001	-0.003	0.013	0.010	0.006	-0.000	0.016	0.010
	(0.018)	(0.016)	(0.016)	(0.013)	(0.016)	(0.013)	(0.017)	(0.014)
2005	-0.015	-0.016	-0.024	-0.011	0.000	0.002	-0.001	0.006
	(0.026)	(0.024)	(0.032)	(0.025)	(0.015)	(0.013)	(0.015)	(0.013)
2006	0.003	0.000	-0.048	-0.049	0.006	0.005	-0.018	-0.015
	(0.020)	(0.017)	(0.039)	(0.036)	(0.016)	(0.013)	(0.016)	(0.013)
2001-6			time-varying group differences		0.001	-0.002	0.012*	0.010**
					(0.006)	(0.005)	(0.006)	(0.005)
2001-6			constant group differences		0.000	-0.002	0.012*	0.010**
					(0.006)	(0.005)	(0.006)	(0.005)
				Male adults				
2001	-0.098	-0.078	-0.087	-0.069	-0.040*	-0.028	-0.040*	-0.028
	(0.082)	(0.072)	(0.073)	(0.064)	(0.024)	(0.021)	(0.024)	(0.021)
2002	0.034***	0.025**	0.037***	0.027**	0.048	0.032	0.058	0.040
	(0.013)	(0.013)	(0.010)	(0.011)	(0.042)	(0.034)	(0.041)	(0.034)
2003	-0.076	-0.041	-0.052	-0.031	-0.053*	-0.034	-0.041	-0.027
	(0.080)	(0.055)	(0.061)	(0.044)	(0.031)	(0.026)	(0.028)	(0.023)
2004	0.009	-0.001	0.023	0.019	0.004	-0.002	0.018	0.014
	(0.025)	(0.024)	(0.018)	(0.014)	(0.023)	(0.018)	(0.025)	(0.020)
2005	-0.011	-0.003	-0.040	-0.017	-0.005	-0.003	-0.016	-0.009
	(0.037)	(0.027)	(0.050)	(0.034)	(0.024)	(0.020)	(0.023)	(0.020)
2006	0.032**	0.024**	0.015	0.010	0.021	0.017	-0.000	-0.001
	(0.013)	(0.012)	(0.023)	(0.019)	(0.030)	(0.024)	(0.028)	(0.022)
2001-6			time-varying group differences		-0.014	-0.010	-0.014	-0.008
					(0.010)	(0.008)	(0.010)	(0.008)
2001-6			constant group differences		-0.012	-0.008	-0.011	-0.006
					(0.010)	(0.008)	(0.009)	(0.008)
				18-21 year olds				
2001-6			time-varying group differences		-0.073*	-0.055	-0.094**	-0.070*
					(0.045)	(0.039)	(0.043)	(0.039)
2001-6			constant group differences		-0.061	-0.042	-0.079*	-0.061
					(0.044)	(0.038)	(0.042)	(0.037)

Notes: Logit model of 6 month job retention rates; Coefficients reported are marginal effects; Standard errors in parentheses; * significant at 10% level, ** significant at 5% level, *** significant at 1% level; All annual NMW increases estimated within the same model; All models include year dummies for each of five wage groups, and an indicator of whether the new minimum is in place for each group (the comparison group is the base category); Policy indicator – dummy equals one if the wage is between the existing and the new minimum, zero otherwise (equivalent to standard difference-in-differences estimates); Policy indicator – wage gap indicator equals the interaction between the dummy indicator and the percentage distance of the wage from the new minimum scaled by the mean wage gap amongst the 'treated'; Allocation to the comparison group determined by the percentage distance of the hourly wage above the new minimum (0-10% or 10-20%); Additional controls where included are age dummies (7 groups), highest educational qualification (4 groups), region of residence dummies, part-time indicator, temporary job indicator, ethnic minority indicator, cubic in the hourly wage, calendar month dummies, public sector indicator, marital status, job tenure and job tenure squared, industry dummies, head of household indicator, health condition that limits activity, number of dependent children in the household, presence of children under age 5; Labour Force Survey matched cross-sections (waves 1and 3); Pooled models with time-varying group differences include year dummies for each wage group; Pooled models without time-varying group differences include common year dummies.

Table 4.1.2 NMW effects on 6 month job retention (single difference estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
					Female adults			
2001	-0.066**	-0.051**	-0.029	-0.012	-0.029***	-0.021**	-0.017*	-0.009
	(0.028)	(0.025)	(0.019)	(0.013)	(0.009)	(0.008)	(0.009)	(0.008)
2002	0.002	0.003	-0.029	-0.010	0.009	0.009	-0.014	-0.002
	(0.014)	(0.011)	(0.024)	(0.016)	(0.015)	(0.012)	(0.016)	(0.013)
2003	-0.004	-0.001	-0.001	0.005	-0.012	-0.007	-0.009	-0.000
	(0.014)	(0.011)	(0.012)	(0.008)	(0.012)	(0.010)	(0.011)	(0.009)
2004	0.004	0.005	-0.008	-0.001	-0.001	0.002	-0.010	-0.003
	(0.012)	(0.009)	(0.017)	(0.012)	(0.011)	(0.009)	(0.012)	(0.010)
2005	-0.016	-0.007	-0.036	-0.015	-0.001	0.001	-0.006	-0.000
	(0.017)	(0.012)	(0.025)	(0.017)	(0.010)	(0.008)	(0.011)	(0.008)
2006	-0.041*	-0.028	-0.054*	-0.036	-0.022*	-0.012	-0.025**	-0.014
	(0.025)	(0.020)	(0.031)	(0.025)	(0.011)	(0.009)	(0.012)	(0.010)
2001-6			constant group differences		-0.013***	-0.008**	-0.012***	-0.005
					(0.004)	(0.004)	(0.004)	(0.004)
					Male adults			
2001	-0.090*	-0.050	-0.068	-0.036	-0.028**	-0.014	-0.024*	-0.011
	(0.054)	(0.037)	(0.043)	(0.029)	(0.014)	(0.012)	(0.014)	(0.011)
2002	0.030**	0.022**	0.025*	0.020*	0.043	0.033	0.032	0.027
	(0.012)	(0.009)	(0.015)	(0.011)	(0.032)	(0.025)	(0.032)	(0.025)
2003	-0.062	-0.022	-0.084	-0.045	-0.051**	-0.028	-0.056***	-0.036**
	(0.051)	(0.030)	(0.053)	(0.036)	(0.021)	(0.017)	(0.018)	(0.015)
2004	-0.002	-0.008	-0.021	-0.008	-0.015	-0.015	-0.026	-0.015
	(0.024)	(0.022)	(0.035)	(0.024)	(0.017)	(0.014)	(0.018)	(0.015)
2005	-0.024	-0.014	-0.033	-0.007	-0.006	-0.001	-0.010	0.003
	(0.029)	(0.022)	(0.032)	(0.019)	(0.014)	(0.012)	(0.014)	(0.012)
2006	-0.002	0.001	0.002	0.004	-0.017	-0.008	-0.012	-0.005
	(0.027)	(0.020)	(0.024)	(0.018)	(0.022)	(0.017)	(0.021)	(0.017)
2001-6			constant group differences		-0.019***	-0.010*	-0.021***	-0.011**
					(0.007)	(0.005)	(0.006)	(0.005)
					18-21 year olds			
2001-6			constant group differences		-0.055*	-0.054*	-0.069**	-0.012
					(0.032)	(0.028)	(0.031)	(0.225)

Notes: See notes to Table 4.1.1.

Table 4.1.3 NMW effects on 12 month job retention (single difference estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
					Female adults			
2001	-0.051*	-0.024	-0.118**	-0.049	-0.024*	-0.012	-0.039***	-0.018
	(0.028)	(0.051)	(0.050)	(0.101)	(0.014)	(0.027)	(0.015)	(0.038)
2002	-0.018	-0.005	-0.026	-0.004	-0.009	-0.000	-0.015	0.001
	(0.023)	(0.016)	(0.024)	(0.014)	(0.019)	(0.011)	(0.019)	(0.011)
2003	-0.001	0.003	-0.009	0.002	-0.008	-0.000	-0.014	-0.001
	(0.018)	(0.011)	(0.019)	(0.010)	(0.016)	(0.009)	(0.016)	(0.009)
2004	-0.007	0.001	-0.011	0.003	-0.013	-0.003	-0.016	-0.001
	(0.020)	(0.010)	(0.022)	(0.013)	(0.016)	(0.010)	(0.017)	(0.010)
2005	-0.058*	-0.029	-0.031	-0.006	-0.016	-0.008	-0.005	0.001
	(0.030)	(0.061)	(0.026)	(0.018)	(0.014)	(0.018)	(0.014)	(0.008)
2006	-0.035	-0.015	-0.024	-0.006	-0.021	-0.006	-0.015	-0.001
	(0.026)	(0.035)	(0.025)	(0.018)	(0.016)	(0.016)	(0.016)	(0.009)
2001-6			constant group differences		-0.015**	-0.005	-0.018***	-0.005
					(0.006)	(0.012)	(0.006)	(0.010)
					Male adults			
2001	-0.235*	-0.174*	-0.116*	-0.078	-0.058**	-0.037*	-0.042**	-0.023
	(0.122)	(0.105)	(0.067)	(0.054)	(0.023)	(0.021)	(0.021)	(0.019)
2002	0.059***	0.046***	0.059***	0.047***	0.136*	0.105	0.139*	0.111*
	(0.014)	(0.013)	(0.013)	(0.011)	(0.081)	(0.066)	(0.080)	(0.065)
2003	-0.079	-0.032	-0.065	-0.035	-0.059*	-0.034	-0.051*	-0.033
	(0.071)	(0.047)	(0.054)	(0.040)	(0.034)	(0.029)	(0.029)	(0.024)
2004	0.012	-0.003	-0.006	-0.003	0.004	-0.008	-0.009	-0.008
	(0.025)	(0.027)	(0.034)	(0.028)	(0.025)	(0.021)	(0.026)	(0.022)
2005	-0.002	0.006	-0.055	-0.020	0.022	0.030	0.000	0.018
	(0.028)	(0.021)	(0.049)	(0.034)	(0.024)	(0.021)	(0.024)	(0.021)
2006	-0.023	-0.023	-0.043	-0.023	-0.036	-0.028	-0.047**	-0.027
	(0.035)	(0.032)	(0.042)	(0.032)	(0.023)	(0.020)	(0.023)	(0.020)
2001-6			constant group differences		-0.023**	-0.014*	-0.026***	-0.013
					(0.010)	(0.009)	(0.010)	(0.008)
					18-21 year olds			
2001-6			constant group differences		0.014	0.012	-0.010	-0.021
					(0.043)	(0.039)	(0.044)	(0.039)

Notes: Logit model of 12 month job retention rates; See notes to Table 4.1.1.

Table 4.1.4 NMW effects on 6 month job entry

Estimator:	difference-in-differences				single difference			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
				Female adults				
2001	0.016	0.001	0.004	-0.004	0.012	-0.002	0.026	0.009
	(0.027)	(0.016)	(0.025)	(0.016)	(0.021)	(0.013)	(0.027)	(0.018)
2002	0.010	0.008	0.058	0.031	0.007	-0.003	0.053	0.031
	(0.028)	(0.022)	(0.048)	(0.033)	(0.022)	(0.014)	(0.039)	(0.028)
2003	-0.020	-0.018**	0.005	0.008	0.003	-0.003	0.029	0.023
	(0.014)	(0.009)	(0.020)	(0.017)	(0.015)	(0.010)	(0.020)	(0.016)
2004	-0.025*	-0.016	-0.037***	-0.023***	-0.015	-0.012	-0.024*	-0.016
	(0.014)	(0.012)	(0.009)	(0.009)	(0.017)	(0.014)	(0.014)	(0.012)
2005	0.006	0.012	-0.014	-0.008	0.021	0.011	0.019	0.011
	(0.022)	(0.019)	(0.016)	(0.012)	(0.020)	(0.014)	(0.020)	(0.015)
2006	-0.015	-0.012	0.017	0.016	-0.005	-0.001	0.037	0.035
	(0.017)	(0.012)	(0.032)	(0.026)	(0.017)	(0.013)	(0.033)	(0.029)

Notes: Logit model of the probability of being outside employment 6 months ago, conditional on being employed; All models use the dummy policy indicator; See notes to Table 4.1.1.

Table 4.1.5 NMW effects on 6 month changes in basic hours worked
(difference-in-differences estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
					Female adults			
2001	-0.280	-0.313	0.519	0.457	-0.127	-0.112	0.355	0.364
	(0.684)	(0.677)	(0.746)	(0.740)	(0.546)	(0.539)	(0.574)	(0.569)
2002	1.286	1.033	-0.436	-0.469	1.455*	1.166	-0.219	-0.292
	(0.793)	(0.784)	(0.783)	(0.775)	(0.790)	(0.781)	(0.781)	(0.772)
2003	-0.551	-0.516	0.635	0.605	-0.772	-0.651	0.268	0.325
	(0.764)	(0.757)	(0.723)	(0.718)	(0.709)	(0.704)	(0.678)	(0.674)
2004	0.265	0.169	0.492	0.539	0.473	0.392	0.649	0.672
	(0.713)	(0.706)	(0.760)	(0.752)	(0.622)	(0.618)	(0.651)	(0.646)
2005	-0.575	-0.364	-0.619	-0.645	0.543	0.598	0.590	0.505
	(0.728)	(0.750)	(0.760)	(0.778)	(0.544)	(0.558)	(0.557)	(0.569)
2006	-0.165	-0.062	-1.553**	-1.551**	-0.189	-0.098	-1.163*	-1.142*
	(0.748)	(0.740)	(0.780)	(0.770)	(0.637)	(0.630)	(0.656)	(0.648)
2001-6			time-varying group differences		0.045	0.051	0.155	0.157
					(0.242)	(0.240)	(0.248)	(0.247)
2001-6			constant group differences		0.047	0.055	0.153	0.157
					(0.242)	(0.240)	(0.248)	(0.246)
					Male adults			
2001	-5.430***	-5.127***	-5.764***	-5.269***	-4.436***	-4.139***	-4.671***	-4.255***
	(1.790)	(1.779)	(1.768)	(1.760)	(1.500)	(1.486)	(1.488)	(1.476)
2002	1.641	2.165	1.693	2.281	0.738	1.190	0.905	1.431
	(2.290)	(2.287)	(2.122)	(2.125)	(2.246)	(2.248)	(2.092)	(2.098)
2003	-3.423*	-3.219	-4.787***	-4.610**	-3.913**	-3.632*	-5.081***	-4.829***
	(2.041)	(2.025)	(1.821)	(1.801)	(1.937)	(1.920)	(1.751)	(1.732)
2004	2.070	1.724	2.553	2.570	1.818	1.767	2.145	2.345*
	(1.678)	(1.665)	(1.689)	(1.677)	(1.384)	(1.373)	(1.390)	(1.380)
2005	2.880*	1.962	0.514	0.085	1.355	0.266	-0.018	-0.769
	(1.706)	(1.772)	(1.646)	(1.699)	(1.363)	(1.423)	(1.335)	(1.388)
2006	0.556	1.168	-0.791	-0.481	0.088	0.906	-0.953	-0.370
	(1.762)	(1.748)	(1.712)	(1.696)	(1.573)	(1.558)	(1.538)	(1.523)
2001-6			time-varying group differences		-0.999	-0.899	-1.524**	-1.328**
					(0.613)	(0.610)	(0.597)	(0.594)
2001-6			constant group differences		-0.823	-0.694	-1.318**	-1.103*
					(0.611)	(0.607)	(0.596)	(0.592)
					18-21 year olds			
2001-6			time-varying group differences		-0.707	-1.571	-1.374	-2.425
					(1.798)	(1.749)	(1.747)	(1.700)
2001-6			constant group differences		-0.200	-1.107	-0.681	-1.710
					(1.778)	(1.728)	(1.723)	(1.676)

Notes: Linear regression model of 6 month changes in usual basic hours worked per week; See notes to Table 4.1.1.

Table 4.1.6 NMW effects on 6 month changes in basic hours worked
(single difference estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
				Female adults				
2001	-0.938*	-1.010**	-0.605	-0.435	-0.507	-0.590	-0.258	-0.190
	(0.493)	(0.488)	(0.534)	(0.531)	(0.404)	(0.399)	(0.424)	(0.420)
2002	0.697	0.633	-0.227	-0.228	0.834	0.754	-0.067	-0.073
	(0.578)	(0.571)	(0.567)	(0.563)	(0.572)	(0.566)	(0.562)	(0.558)
2003	-0.022	0.057	-0.531	-0.356	-0.354	-0.223	-0.752	-0.536
	(0.562)	(0.557)	(0.524)	(0.522)	(0.521)	(0.517)	(0.491)	(0.490)
2004	0.192	0.220	0.237	0.337	0.096	0.143	0.119	0.228
	(0.514)	(0.510)	(0.549)	(0.545)	(0.454)	(0.450)	(0.475)	(0.472)
2005	-0.783	-0.637	-1.107**	-0.913*	0.183	0.228	0.073	0.140
	(0.515)	(0.511)	(0.546)	(0.542)	(0.393)	(0.389)	(0.406)	(0.403)
2006	-0.391	-0.404	-1.380**	-1.531***	-0.328	-0.281	-1.022**	-1.059**
	(0.536)	(0.530)	(0.565)	(0.561)	(0.463)	(0.458)	(0.481)	(0.476)
2001-6			constant group differences		-0.154	-0.143	-0.301*	-0.224
					(0.178)	(0.177)	(0.182)	(0.184)
				Male adults				
2001	-3.840***	-3.846***	-3.169**	-3.371***	-2.576**	-2.620**	-2.145**	-2.325**
	(1.266)	(1.259)	(1.250)	(1.242)	(1.057)	(1.049)	(1.048)	(1.040)
2002	2.928*	2.873*	1.990	1.730	2.503*	2.489*	1.651	1.437
	(1.527)	(1.521)	(1.446)	(1.446)	(1.497)	(1.493)	(1.422)	(1.423)
2003	-3.809**	-3.397**	-4.989***	-4.893***	-5.151***	-4.671***	-6.005***	-5.802***
	(1.517)	(1.512)	(1.348)	(1.337)	(1.453)	(1.448)	(1.310)	(1.300)
2004	-0.379	-0.704	-0.439	-0.389	-0.717	-0.730	-0.759	-0.509
	(1.232)	(1.219)	(1.235)	(1.229)	(1.042)	(1.031)	(1.043)	(1.037)
2005	1.449	0.892	0.691	0.310	1.850**	1.506	1.388	1.147
	(1.214)	(1.211)	(1.183)	(1.186)	(0.934)	(0.928)	(0.920)	(0.917)
2006	-0.082	-0.056	-0.052	-0.153	-0.777	-0.685	-0.710	-0.707
	(1.216)	(1.212)	(1.165)	(1.159)	(1.081)	(1.075)	(1.046)	(1.039)
2001-6			constant group differences		-1.201***	-1.186***	-1.379***	-1.398***
					(0.441)	(0.439)	(0.429)	(0.429)
				18-21 year olds				
2001-6			constant group differences		-0.615	-1.341	-1.382	-2.240*
					(1.406)	(1.339)	(1.349)	(1.287)

Notes: Linear regression model of 6 month changes in usual basic hours worked per week; See notes to Table 4.1.1.

Table 4.1.7 NMW effects on 12 month changes in basic hours worked
(single difference estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
				Female adults				
2001	-0.597	-0.594	-1.122	-0.810	-0.420	-0.524	-0.723	-0.642
	(0.687)	(0.676)	(0.743)	(0.734)	(0.559)	(0.550)	(0.588)	(0.579)
2002	0.228	0.077	-0.060	-0.058	0.509	0.303	0.217	0.168
	(0.751)	(0.738)	(0.734)	(0.724)	(0.743)	(0.732)	(0.727)	(0.718)
2003	-0.848	-0.746	-0.430	-0.241	-1.055	-0.843	-0.681	-0.399
	(0.738)	(0.728)	(0.692)	(0.684)	(0.686)	(0.677)	(0.650)	(0.644)
2004	0.341	0.371	0.478	0.676	-0.201	-0.166	-0.153	0.011
	(0.675)	(0.665)	(0.718)	(0.709)	(0.599)	(0.591)	(0.626)	(0.618)
2005	-1.979***	-1.879***	-1.569**	-1.238*	-0.637	-0.639	-0.309	-0.191
	(0.674)	(0.664)	(0.721)	(0.711)	(0.522)	(0.514)	(0.541)	(0.534)
2006	-0.468	-0.390	-0.868	-1.014	0.014	0.112	-0.231	-0.289
	(0.703)	(0.691)	(0.745)	(0.734)	(0.618)	(0.607)	(0.644)	(0.634)
2001-6			constant group differences		-0.349	-0.335	-0.376	-0.275
					(0.239)	(0.237)	(0.245)	(0.245)
				Male adults				
2001	-6.358***	-6.714***	-4.613***	-5.073***	-4.273***	-4.517***	-3.218**	-3.558**
	(1.740)	(1.731)	(1.667)	(1.651)	(1.452)	(1.441)	(1.413)	(1.398)
2002	3.134	2.819	3.435*	3.018	3.064	2.794	3.366*	2.989
	(1.974)	(1.965)	(1.869)	(1.868)	(1.946)	(1.941)	(1.849)	(1.851)
2003	-2.910	-3.162	-3.915**	-4.041**	-2.312	-2.615	-3.377*	-3.544**
	(2.019)	(2.011)	(1.787)	(1.766)	(1.945)	(1.936)	(1.746)	(1.727)
2004	1.104	0.283	2.087	1.630	0.868	0.284	1.534	1.200
	(1.565)	(1.546)	(1.571)	(1.558)	(1.327)	(1.312)	(1.330)	(1.319)
2005	1.648	0.861	-0.649	-1.508	1.425	0.917	0.060	-0.501
	(1.561)	(1.553)	(1.515)	(1.517)	(1.208)	(1.197)	(1.187)	(1.182)
2006	-1.459	-1.690	-2.044	-1.866	-2.686*	-2.805**	-3.102**	-2.889**
	(1.575)	(1.567)	(1.536)	(1.525)	(1.406)	(1.397)	(1.380)	(1.368)
2001-6			constant group differences		-1.206**	-1.524***	-1.227**	-1.462***
					(0.584)	(0.581)	(0.566)	(0.565)
				18-21 year olds				
2001-6			constant group differences		1.873	0.920	0.821	-0.314
					(1.732)	(1.688)	(1.691)	(1.650)

Notes: Linear regression model of 12 month changes in usual basic hours worked per week; See notes to Table 4.1.1.

Table 4.1.8 NMW effects on 6 month changes in total hours worked
(difference-in-differences estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
				Female adults				
2001	-1.178	-1.414	0.272	0.005	-0.552	-0.465	0.338	0.455
	(1.085)	(1.084)	(1.183)	(1.184)	(0.865)	(0.864)	(0.911)	(0.910)
2002	2.073*	1.803	0.909	0.897	2.352*	2.042	1.216	1.158
	(1.259)	(1.256)	(1.243)	(1.241)	(1.253)	(1.250)	(1.238)	(1.236)
2003	-2.003*	-2.063*	-0.366	-0.515	-1.900*	-1.839	-0.504	-0.529
	(1.212)	(1.213)	(1.148)	(1.149)	(1.125)	(1.127)	(1.076)	(1.079)
2004	-0.112	-0.033	1.509	1.613	0.153	0.210	1.332	1.404
	(1.131)	(1.131)	(1.205)	(1.204)	(0.987)	(0.989)	(1.032)	(1.033)
2005	-1.250	-0.335	0.011	0.424	0.638	0.878	1.431	1.370
	(1.155)	(1.200)	(1.206)	(1.245)	(0.863)	(0.893)	(0.884)	(0.912)
2006	0.129	0.206	0.263	0.291	0.334	0.431	0.431	0.496
	(1.187)	(1.185)	(1.238)	(1.233)	(1.010)	(1.008)	(1.041)	(1.037)
2001-6			time-varying group differences		-0.175	-0.113	0.515	0.548
					(0.384)	(0.385)	(0.394)	(0.395)
2001-6			constant group differences		-0.175	-0.115	0.508	0.544
					(0.384)	(0.385)	(0.394)	(0.395)
				Male adults				
2001	-2.566	-1.900	-4.465	-3.265	-2.116	-1.679	-3.376	-2.585
	(2.902)	(2.913)	(2.867)	(2.881)	(2.434)	(2.434)	(2.415)	(2.418)
2002	4.582	5.449	6.913**	8.014**	3.364	4.216	5.762*	6.841**
	(3.713)	(3.746)	(3.441)	(3.480)	(3.644)	(3.682)	(3.394)	(3.438)
2003	-2.155	-1.975	-2.366	-1.932	-2.467	-2.130	-2.600	-2.064
	(3.310)	(3.315)	(2.952)	(2.949)	(3.142)	(3.146)	(2.841)	(2.839)
2004	1.945	1.689	3.333	3.352	1.449	1.362	2.368	2.474
	(2.721)	(2.726)	(2.739)	(2.746)	(2.245)	(2.249)	(2.255)	(2.261)
2005	1.784	1.599	2.389	2.074	0.356	-0.498	0.802	-0.045
	(2.766)	(2.902)	(2.668)	(2.782)	(2.210)	(2.331)	(2.165)	(2.275)
2006	-0.378	0.135	-2.719	-2.213	-0.769	0.026	-2.639	-1.851
	(2.858)	(2.863)	(2.777)	(2.777)	(2.551)	(2.553)	(2.496)	(2.495)
2001-6			time-varying group differences		-0.459	-0.274	-0.741	-0.397
					(0.994)	(0.998)	(0.969)	(0.973)
2001-6			constant group differences		-0.268	-0.056	-0.495	-0.143
					(0.991)	(0.994)	(0.966)	(0.969)
				18-21 year olds				
2001-6			time-varying group differences		-1.053	-1.864	-1.748	-2.966
					(2.397)	(2.373)	(2.329)	(2.308)
2001-6			constant group differences		-0.013	-0.912	-0.626	-1.804
					(2.373)	(2.347)	(2.298)	(2.274)

Notes: Linear regression model of 6 month changes in usual total (basic + paid overtime) hours worked per week; See notes to Table 4.1.1.

Table 4.1.9 NMW effects on 6 month changes in total hours worked
(single difference estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
					Female adults			
2001	-1.181	-1.242*	-1.118	-0.884	-0.460	-0.509	-0.344	-0.206
	(0.753)	(0.752)	(0.816)	(0.818)	(0.616)	(0.615)	(0.647)	(0.647)
2002	1.417	1.366	0.723	0.782	1.645*	1.572*	0.965	1.011
	(0.883)	(0.881)	(0.867)	(0.868)	(0.874)	(0.872)	(0.858)	(0.860)
2003	-1.313	-1.340	-1.953**	-1.869**	-1.559**	-1.520*	-2.083***	-1.947***
	(0.859)	(0.859)	(0.800)	(0.804)	(0.795)	(0.797)	(0.750)	(0.755)
2004	-0.196	0.036	0.664	0.836	-0.117	0.087	0.514	0.679
	(0.786)	(0.786)	(0.838)	(0.841)	(0.693)	(0.693)	(0.726)	(0.727)
2005	-1.193	-1.065	-0.774	-0.496	0.119	0.126	0.435	0.519
	(0.787)	(0.787)	(0.835)	(0.836)	(0.601)	(0.600)	(0.620)	(0.620)
2006	-0.046	-0.045	-0.563	-0.659	0.007	0.075	-0.355	-0.340
	(0.819)	(0.817)	(0.864)	(0.864)	(0.707)	(0.705)	(0.734)	(0.733)
2001-6			constant group differences		-0.277	-0.241	-0.298	-0.198
					(0.271)	(0.273)	(0.278)	(0.283)
					Male adults			
2001	-2.715	-2.511	-1.767	-1.967	-1.698	-1.674	-1.075	-1.325
	(2.098)	(2.106)	(2.072)	(2.077)	(1.752)	(1.756)	(1.738)	(1.741)
2002	6.625***	6.620***	6.326***	6.065**	6.169**	6.215**	5.936**	5.732**
	(2.530)	(2.544)	(2.396)	(2.418)	(2.482)	(2.498)	(2.358)	(2.382)
2003	-3.451	-3.097	-3.097	-3.023	-4.569*	-4.094*	-4.054*	-3.841*
	(2.514)	(2.529)	(2.233)	(2.235)	(2.410)	(2.423)	(2.172)	(2.175)
2004	-1.954	-2.213	-2.187	-2.169	-1.492	-1.465	-1.650	-1.424
	(2.042)	(2.039)	(2.046)	(2.054)	(1.727)	(1.725)	(1.730)	(1.734)
2005	1.063	0.715	1.589	0.988	1.284	1.055	1.591	1.215
	(2.012)	(2.025)	(1.961)	(1.983)	(1.549)	(1.552)	(1.527)	(1.534)
2006	-2.077	-2.172	-1.319	-1.458	-2.327	-2.406	-1.720	-1.825
	(2.015)	(2.026)	(1.931)	(1.938)	(1.792)	(1.798)	(1.735)	(1.739)
2001-6			constant group differences		-1.215*	-1.187	-0.950	-1.027
					(0.731)	(0.734)	(0.711)	(0.718)
					18-21 year olds			
2001-6			constant group differences		-0.851	-1.457	-0.978	-1.813
					(1.811)	(1.770)	(1.736)	(1.700)

Notes: Linear regression model of 6 month changes in usual total (basic + paid overtime) hours worked per week; See notes to Table 4.1.1.

Table 4.1.10 NMW effects on 12 month changes in total hours worked
(single difference estimates)

Policy indicator:	Dummy				Wage gap			
Comparison group:	0-10%		10-20%		0-10%		10-20%	
Additional controls:	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
					Female adults			
2001	-1.730*	-1.722*	-1.973*	-1.474	-0.881	-0.968	-0.938	-0.723
	(1.013)	(1.008)	(1.096)	(1.095)	(0.825)	(0.820)	(0.867)	(0.864)
2002	0.987	0.843	0.493	0.532	1.308	1.103	0.815	0.805
	(1.107)	(1.100)	(1.082)	(1.079)	(1.096)	(1.090)	(1.073)	(1.070)
2003	-3.487***	-3.481***	-1.802*	-1.713*	-3.397***	-3.281***	-1.981**	-1.791*
	(1.089)	(1.085)	(1.020)	(1.020)	(1.011)	(1.010)	(0.959)	(0.961)
2004	-0.447	-0.368	0.747	1.100	-0.911	-0.771	-0.079	0.279
	(0.996)	(0.991)	(1.059)	(1.057)	(0.883)	(0.880)	(0.924)	(0.922)
2005	-2.176**	-2.100**	-2.096**	-1.692	-0.552	-0.582	-0.381	-0.236
	(0.994)	(0.989)	(1.063)	(1.061)	(0.770)	(0.766)	(0.798)	(0.795)
2006	-1.330	-0.960	-1.075	-1.192	-0.206	0.134	0.079	0.073
	(1.036)	(1.031)	(1.099)	(1.095)	(0.911)	(0.905)	(0.950)	(0.945)
2001-6			constant group differences		-0.937***	-0.882**	-0.576	-0.411
					(0.352)	(0.353)	(0.361)	(0.366)
					Male adults			
2001	-6.686**	-6.665**	-4.361*	-4.752*	-4.310**	-4.383**	-2.878	-3.237
	(2.623)	(2.620)	(2.513)	(2.499)	(2.188)	(2.181)	(2.130)	(2.117)
2002	4.513	4.466	6.578**	6.131**	4.438	4.391	6.434**	6.005**
	(2.974)	(2.974)	(2.816)	(2.827)	(2.934)	(2.938)	(2.788)	(2.802)
2003	-1.483	-1.807	-2.431	-2.568	-0.293	-0.618	-1.409	-1.557
	(3.043)	(3.043)	(2.693)	(2.673)	(2.932)	(2.931)	(2.633)	(2.615)
2004	-0.796	-1.609	0.094	-0.582	-0.007	-0.528	0.602	0.183
	(2.358)	(2.340)	(2.368)	(2.358)	(2.000)	(1.985)	(2.005)	(1.996)
2005	2.977	2.258	1.107	-0.177	2.545	2.095	1.444	0.650
	(2.352)	(2.350)	(2.283)	(2.295)	(1.821)	(1.812)	(1.790)	(1.789)
2006	-3.656	-4.068*	-2.374	-2.506	-4.379**	-4.689**	-3.350	-3.429*
	(2.373)	(2.371)	(2.315)	(2.308)	(2.120)	(2.114)	(2.080)	(2.070)
2001-6			constant group differences		-1.237	-1.525*	-0.786	-1.129
					(0.880)	(0.879)	(0.852)	(0.855)
					18-21 year olds			
2001-6			constant group differences		0.936	0.004	1.022	-0.066
					(2.210)	(2.194)	(2.157)	(2.143)

Notes: Linear regression model of 12 month changes in usual total (basic + paid overtime) hours worked per week; See notes to Table 4.1.1.

8 TABLES - SECTION 4.2

Table 4.2.2 NMW effects on 12 month job retention (single difference estimates)

Policy Indicator:	Dummy				Wage gap			
Comparison group	0-10%		10-20%		0-10%		10-20%	
Additional controls	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
				Female adults				
2001	-0.032***	0.000	-0.077***	-0.020*	-0.025***	-0.004	-0.049***	-0.016**
	0.011	0.010	0.012	0.011	0.008	0.008	0.008	0.008
2002	-0.068***	-0.043***	-0.099***	-0.054***	-0.063***	-0.042***	-0.086***	-0.052***
	0.014	0.013	0.014	0.014	0.011	0.011	0.011	0.011
2003	-0.037***	-0.024**	-0.063***	-0.040***	-0.034***	-0.024***	-0.050***	-0.034***
	0.012	0.012	0.012	0.012	0.009	0.009	0.009	0.009
2004	-0.037***	-0.019**	-0.062***	-0.033***	-0.039***	-0.021***	-0.052***	-0.029***
	0.009	0.009	0.010	0.010	0.007	0.007	0.007	0.007
2005	-0.075***	-0.051***	-0.086***	-0.048***	-0.059***	-0.042***	-0.065***	-0.040***
	0.010	0.010	0.011	0.010	0.007	0.007	0.007	0.007
2006	-0.085***	-0.070***	-0.084***	-0.059***	-0.076***	-0.057***	-0.075***	-0.051***
	0.011	0.011	0.011	0.011	0.009	0.009	0.009	0.009
				Male adults				
2001	-0.042**	-0.012	-0.128***	-0.068***	-0.040***	-0.023*	-0.084***	-0.054***
	0.018	0.017	0.020	0.019	0.012	0.012	0.012	0.012
2002	-0.068***	-0.052**	-0.119***	-0.080***	-0.057***	-0.041**	-0.093***	-0.062***
	0.023	0.023	0.024	0.023	0.018	0.018	0.017	0.018
2003	-0.030*	-0.010	-0.049***	-0.017	-0.025*	-0.009	-0.037***	-0.012
	0.018	0.017	0.017	0.016	0.013	0.013	0.013	0.013
2004	-0.010	0.013	-0.047***	-0.002	-0.020**	0.002	-0.042***	-0.007
	0.013	0.012	0.014	0.013	0.010	0.010	0.010	0.010
2005	-0.039***	-0.010	-0.085***	-0.037***	-0.017*	0.004	-0.043***	-0.012
	0.014	0.013	0.015	0.014	0.010	0.010	0.010	0.010
2006	-0.049***	-0.022	-0.070***	-0.032**	-0.051***	-0.028**	-0.065***	-0.034***
	0.015	0.016	0.015	0.015	0.012	0.013	0.012	0.012
				18-21 year olds				
2001	-0.031	-0.069	-0.038	-0.042	-0.041	-0.073	-0.045	-0.054
	0.068	0.072	0.067	0.071	0.055	0.061	0.055	0.060
2002	-0.069	-0.087	-0.098	-0.107	-0.041	-0.044	-0.068	-0.066
	0.108	0.112	0.101	0.105	0.096	0.100	0.091	0.094
2003	-0.100	-0.121	-0.081	-0.107	-0.092	-0.113*	-0.079	-0.105*
	0.072	0.075	0.065	0.067	0.061	0.062	0.056	0.058
2004	0.008	-0.009	-0.031	-0.020	-0.016	-0.027	-0.044	-0.032
	0.046	0.048	0.045	0.046	0.040	0.041	0.038	0.040
2005	0.034	0.017	0.005	-0.020	0.035	0.025	0.012	-0.008
	0.042	0.044	0.036	0.038	0.036	0.038	0.032	0.034
2006	-0.031	-0.047	-0.007	-0.021	-0.008	-0.014	0.007	-0.001
	0.041	0.042	0.034	0.035	0.036	0.037	0.031	0.032

Notes: Logit model of 12 month job retention rates; Coefficients reported are marginal effects; Standard errors in parentheses; * significant at 10% level, ** significant at 5% level, *** significant at 1% level; All models include year dummies for each of five wage groups, and an indicator of whether the new minimum is in place for each group (the comparison group is the base category); Policy indicator – dummy equals one if the wage is between the existing and the new minimum, zero otherwise; Policy indicator – wage gap indicator equals the interaction between the dummy indicator and the percentage distance of the wage from the new minimum scaled by the mean wage gap amongst the 'treated'; Allocation to the comparison group determined by the percentage distance of the hourly wage above the new minimum (0-10% or 10-20%); Additional controls where included are age dummies (4 groups), area of employer dummies, part-time indicator, whether been in job 12 months, cubic in the hourly wage, public sector indicator, industry dummies.

Table 4.2.2 NMW effects on change in basic hours (single difference estimates)

Policy Indicator:	Dummy				Wage gap			
Comparison group	0-10%		10-20%		0-10%		10-20%	
Additional controls	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
				Female adults				
2001	-0.416	0.480	-1.191***	0.021	-0.299	0.397	-0.772***	0.133
	0.378	0.368	0.372	0.367	0.293	0.286	0.290	0.285
2002	-1.359***	-0.964**	-1.947***	-1.231***	-1.378***	-0.898**	-1.884***	-1.133***
	0.458	0.446	0.451	0.442	0.425	0.416	0.419	0.413
2003	-0.798**	-0.373	-1.216***	-0.800**	-0.648*	-0.250	-0.947***	-0.524
	0.401	0.391	0.391	0.383	0.335	0.329	0.329	0.324
2004	-0.551*	-0.316	-0.856***	-1.066***	-0.735***	-0.362	-0.938***	-0.745***
	0.319	0.310	0.327	0.321	0.261	0.255	0.265	0.260
2005	-0.890***	-0.740**	-1.098***	-1.018***	-1.115***	-0.817***	-1.248***	-0.957***
	0.331	0.323	0.332	0.327	0.265	0.259	0.265	0.261
2006	-1.328***	-1.422***	-0.438	-1.030***	-1.129***	-1.003***	-0.492	-0.693**
	0.359	0.346	0.359	0.351	0.308	0.298	0.308	0.300
				Male adults				
2001	-0.867	-0.792	-3.309***	-3.183***	-0.786	-0.911*	-2.290***	-2.404***
	0.721	0.712	0.691	0.685	0.557	0.550	0.543	0.537
2002	-1.265	-1.838**	-3.426***	-3.651***	-0.860	-1.418*	-2.727***	-3.023***
	0.906	0.895	0.870	0.862	0.822	0.814	0.794	0.788
2003	-0.240	-0.500	-0.610	-1.133*	-0.042	-0.349	-0.318	-0.755
	0.741	0.730	0.691	0.683	0.595	0.588	0.566	0.561
2004	0.198	0.113	-0.483	-0.862	-0.029	-0.131	-0.465	-0.713
	0.578	0.567	0.564	0.557	0.453	0.445	0.446	0.441
2005	0.052	-0.455	-1.368**	-1.933***	0.667	0.262	-0.286	-0.687
	0.565	0.557	0.546	0.542	0.452	0.446	0.442	0.438
2006	0.368	-0.379	0.062	-1.063*	0.210	-0.486	-0.001	-0.921**
	0.598	0.587	0.578	0.571	0.487	0.480	0.475	0.470
				18-21 year olds				
2001	-2.238	-3.215	0.157	-1.664	-0.640	-1.944	0.905	-0.931
	2.437	2.348	2.412	2.319	1.964	1.920	1.951	1.907
2002	-6.453*	-4.517	-5.996*	-4.625	-4.202	-3.325	-4.042	-3.381
	3.747	3.600	3.517	3.376	3.409	3.269	3.233	3.097
2003	-6.381**	-5.315**	-5.962***	-3.912*	-4.584**	-4.348**	-4.560**	-3.419*
	2.566	2.450	2.273	2.170	2.120	2.015	1.946	1.848
2004	-1.981	-1.567	-2.236	-0.909	-1.184	-1.295	-1.427	-0.797
	1.690	1.590	1.618	1.528	1.454	1.365	1.408	1.325
2005	1.595	0.214	-0.501	-0.335	1.580	0.375	-0.069	-0.080
	1.542	1.451	1.321	1.243	1.319	1.247	1.173	1.108
2006	-1.079	-1.670	-2.652**	-1.330	-0.157	-1.175	-1.675	-0.972
	1.464	1.351	1.222	1.131	1.277	1.180	1.107	1.026

Notes: OLS model of change in basic hours. ; See notes to Table 4.2.2.

Table 4.2.4 NMW effects on change in total hours (single difference estimates)

Policy Indicator:	Dummy				Wage gap			
Comparison group	0-10%		10-20%		0-10%		10-20%	
Additional controls	*no*	*yes*	*no*	*yes*	*no*	*yes*	*no*	*yes*
				Female adults				
2001	-0.449	0.458	-1.088***	0.171	-0.264	0.430	-0.655***	0.270
	0.392	0.382	0.386	0.381	0.303	0.297	0.301	0.296
2002	-1.093**	-0.653	-1.869***	-1.017**	-1.095**	-0.570	-1.762***	-0.899**
	0.473	0.461	0.465	0.457	0.439	0.430	0.433	0.427
2003	-0.858**	-0.435	-1.447***	-1.030***	-0.670*	-0.276	-1.090***	-0.671**
	0.415	0.406	0.404	0.398	0.347	0.341	0.341	0.336
2004	-0.559*	-0.295	-0.839**	-1.011***	-0.749***	-0.348	-0.936***	-0.713***
	0.331	0.322	0.339	0.333	0.271	0.265	0.275	0.270
2005	-0.851**	-0.695**	-1.071***	-0.915***	-1.125***	-0.841***	-1.267***	-0.958***
	0.344	0.335	0.344	0.340	0.275	0.269	0.275	0.271
2006	-1.501***	-1.564***	-0.610*	-1.119***	-1.216***	-1.086***	-0.579*	-0.755**
	0.370	0.358	0.370	0.363	0.317	0.308	0.317	0.310
				Male adults				
2001	-0.482	-0.447	-2.493***	-2.509***	-0.501	-0.677	-1.736***	-1.964***
	0.796	0.785	0.763	0.755	0.615	0.607	0.599	0.593
2002	-0.805	-1.375	-3.145***	-3.349***	-0.529	-1.082	-2.541***	-2.822***
	0.988	0.975	0.949	0.939	0.896	0.888	0.865	0.859
2003	0.191	-0.067	-0.077	-0.658	0.097	-0.251	-0.082	-0.579
	0.811	0.799	0.756	0.748	0.651	0.644	0.620	0.615
2004	0.168	0.108	-0.363	-0.707	0.025	-0.050	-0.318	-0.528
	0.628	0.617	0.613	0.607	0.492	0.485	0.484	0.480
2005	0.284	-0.225	-1.019*	-1.582***	0.799	0.377	-0.074	-0.499
	0.613	0.605	0.592	0.588	0.490	0.484	0.479	0.476
2006	0.624	-0.140	0.493	-0.705	0.493	-0.243	0.404	-0.572
	0.645	0.633	0.623	0.616	0.525	0.518	0.512	0.508
				18-21 year olds				
2001	-2.298	-3.138	0.223	-1.715	-0.419	-1.889	1.204	-0.925
	2.568	2.490	2.542	2.460	2.069	2.037	2.056	2.023
2002	-6.298	-4.559	-6.191*	-4.995	-3.667	-2.926	-3.841	-3.287
	3.912	3.779	3.672	3.544	3.559	3.432	3.376	3.251
2003	-6.683**	-5.664***	-5.916**	-3.954*	-4.521**	-4.261**	-4.300**	-3.173
	2.725	2.620	2.414	2.321	2.252	2.156	2.067	1.978
2004	-1.468	-0.955	-1.770	-0.536	-0.636	-0.687	-0.917	-0.363
	1.770	1.685	1.695	1.620	1.523	1.448	1.474	1.405
2005	1.463	0.045	-0.421	-0.435	1.378	0.128	-0.089	-0.257
	1.615	1.537	1.384	1.316	1.382	1.321	1.229	1.173
2006	-1.003	-1.454	-2.292*	-1.000	0.047	-0.869	-1.271	-0.598
	1.519	1.420	1.269	1.189	1.325	1.241	1.149	1.078

Notes: OLS model of change in total hours. ; See notes to Table 4.2.2.

9 TABLES - SECTION 4.3

Table 4.3.1 Impact on Inequality

Inequality Estimates:: 135 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(50th/5th hourly wage percentile)						
Proportion Below NMW t-1	-0.236***	-0.237***	-0.144	-0.415**	-0.410***	0.049
	(0.090)	(0.090)	(0.192)	(0.166)	(0.157)	(0.190)
Low Qual Share		0.058	-0.007		0.083*	-0.042
		(0.048)	(0.098)		(0.049)	(0.083)
No Qual Share		-0.128	-0.212		0.011	0.054
		(0.100)	(0.256)		(0.069)	(0.135)
Youth Share		0.026	-0.038		-0.061	0.005
		(0.059)	(0.081)		(0.068)	(0.071)
Migrant/Population rate						
Observations	1080	1080	405	1080	1080	405
Number of areas	135	135	135	135	135	135
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.2 Impact on Inequality

Inequality Estimates:: 135 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change in Log(50th/5th hourly wage percentile)						
Proportion Below NMW t-1	-0.262**	-0.271**	-0.531**	-0.306***	-0.309***	-0.505***
	(0.122)	(0.110)	(0.235)	(0.070)	(0.069)	(0.134)
Change in Low Qual Share		0.018	0.017		0.029	0.033
		(0.040)	(0.043)		(0.036)	(0.038)
Change in No Qual Share		-0.127*	-0.127*		-0.060	-0.060
		(0.068)	(0.076)		(0.049)	(0.052)
Change in Youth Share		0.032	0.028		0.007	0.008
		(0.047)	(0.050)		(0.037)	(0.039)
Change in Migrant/Population rate						
Observations	1080	1080	1080	1080	1080	1080
Number of areas	135	135	135	135	135	135
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.3 Impact on Inequality

Inequality Estimates:: 135 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(50th/5th hourly wage percentile)						
Proportion Below NMW t-1	0.099	0.066	-0.570**	0.015	0.007	-0.560***
	(0.244)	(0.223)	(0.274)	(0.169)	(0.136)	(0.182)
Low Qual Share		0.063	0.063		-0.036	-0.052
		(0.075)	(0.147)		(0.054)	(0.082)
No Qual Share		-0.086	0.102		-0.011	0.085
		(0.137)	(0.266)		(0.102)	(0.181)
Youth Share		1.139***	1.765		0.743***	1.313*
		(0.435)	(1.116)		(0.286)	(0.705)
Migrant/Population rate						
Observations	616	616	231	616	616	231
Number of areas	77	77	77	77	77	77
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.4 Impact on Inequality

Inequality Estimates: 135 Areas, All 18-21

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change in Log(50th/5th hourly wage percentile)						
Proportion Below NMW t-1	-0.786***	-0.793***	-1.199***	-0.582***	-0.616***	-1.180***
	(0.247)	(0.245)	(0.319)	(0.148)	(0.147)	(0.212)
Change in Low Qual Share		0.077	0.073		-0.051	-0.046
		(0.090)	(0.097)		(0.061)	(0.065)
Change in No Qual Share		-0.272	-0.280		-0.126	-0.122
		(0.183)	(0.195)		(0.117)	(0.125)
Change in Youth Share		0.973***	0.889***		0.890***	0.800***
		(0.363)	(0.340)		(0.270)	(0.248)
Change in Migrant/Population rate						
Observations	616	616	616	616	616	616
Number of areas	77	77	77	77	77	77
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.5 Employment Rate in Levels

Employment Estimates: 135 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
log(NMW/Median Wage)	-0.065	-0.043	0.039	-0.020	-0.011	-0.021
	(0.052)	(0.038)	(0.086)	(0.032)	(0.030)	(0.062)
Low Qual Share		-0.098**	-0.224***		-0.075**	-0.098
		(0.044)	(0.080)		(0.034)	(0.068)
No Qual Share		-0.274***	-0.226*		-0.274***	-0.149
		(0.056)	(0.119)		(0.046)	(0.095)
Youth Share		0.080	0.192**		-0.012	0.040
		(0.085)	(0.095)		(0.042)	(0.075)
Migrant/Population rate			-6.463			-0.307
			(4.580)			(3.580)
Observations	1080	1080	405	1080	1080	405
Number of areas	135	135	135	135	135	135
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.6 Employment Rate in First Differences

Employment Estimates: 135 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Employment Rate (Proportion)								
Change in log(NMW/Median Wage)	-0.086*	-0.070	-0.059	-0.075	-0.021	-0.022	-0.007	-0.027
	(0.052)	(0.046)	(0.072)	(0.046)	(0.036)	(0.032)	(0.056)	(0.031)
Change in Low Qual Share		-0.119**	-0.169***	-0.120***		-0.064**	-0.059	-0.064**
		(0.049)	(0.059)	(0.043)		(0.032)	(0.051)	(0.030)
Change in No Qual Share		-0.220***	-0.334***	-0.218***		-0.242***	-0.243***	-0.236***
		(0.071)	(0.092)	(0.064)		(0.044)	(0.073)	(0.041)
Change in Youth Share		0.127*	0.120*	0.131**		0.028	0.033	0.029
		(0.068)	(0.065)	(0.051)		(0.038)	(0.056)	(0.036)
Change in Migrant/Population rate			-4.829				-0.862	
			(3.298)				(2.600)	
Observations	1080	1080	405	1080	1080	1080	405	1080
Number of areas	135	135	135	135	135	135	135	135
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.7 Employment Rate in Levels

Employment Estimates: 135 Areas, Adult Males

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
log(NMW/Median Wage)	-0.047	-0.053	-0.068	0.011	0.013	-0.008
	(0.046)	(0.043)	(0.085)	(0.028)	(0.026)	(0.056)
Low Qual Share		0.052	0.015		-0.001	-0.065
		(0.036)	(0.073)		(0.031)	(0.062)
No Qual Share		-0.372***	-0.380***		-0.280***	-0.227***
		(0.049)	(0.101)		(0.039)	(0.086)
Youth Share		-0.018	0.198*		-0.062	0.029
		(0.065)	(0.102)		(0.043)	(0.093)
Migrant/Population rate			-5.243*			-3.430
			(2.913)			(2.273)
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.8 Employment Rate in First Differences

Employment Estimates: 135 Areas, Adult Males

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Employment Rate (Proportion)								
Change in log(NMW/Median Wage)	-0.048	-0.052	-0.126*	-0.053	0.004	0.005	-0.026	0.004
	(0.046)	(0.040)	(0.069)	(0.040)	(0.030)	(0.028)	(0.045)	(0.027)
Change in Low Qual Share		0.050	0.016	0.052		0.008	-0.021	0.009
		(0.037)	(0.056)	(0.038)		(0.030)	(0.045)	(0.029)
Change in No Qual Share		-0.386***	-0.481***	-0.392***		-0.280***	-0.328***	-0.282***
		(0.051)	(0.078)	(0.053)		(0.040)	(0.063)	(0.039)
Change in Youth Share		0.028	0.078	0.029		-0.004	-0.006	-0.004
		(0.057)	(0.078)	(0.060)		(0.043)	(0.072)	(0.044)
Change in Migrant/Population rate			-3.814				-3.941**	
			(2.484)				(1.901)	
Observations	1048	1048	393	1048	1048	1048	393	1048
Number of areas	131	131	131	131	131	131	131	131
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.9 Employment Rate in Levels

Employment Estimates: 135 Areas, Adult Females

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
log(NMW/Median Wage)	-0.016	-0.011	-0.036	-0.066	-0.038	0.026
	(0.050)	(0.048)	(0.103)	(0.041)	(0.039)	(0.086)
Low Qual Share		-0.147***	-0.262***		-0.136***	-0.157**
		(0.044)	(0.077)		(0.035)	(0.074)
No Qual Share		-0.200***	0.019		-0.230***	-0.077
		(0.068)	(0.111)		(0.050)	(0.108)
Youth Share		-0.014	-0.054		0.009	-0.011
		(0.079)	(0.111)		(0.063)	(0.115)
Migrant/Population rate			3.955			4.280*
			(2.490)			(2.596)
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.10 Employment Rate in First Differences

Employment Estimates: 135 Areas, Adult Females

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Employment Rate (Proportion)								
Change in log(NMW/Median Wage)	-0.009	-0.000	0.038	-0.000	0.021	0.028	0.118	0.029
	(0.047)	(0.044)	(0.084)	(0.046)	(0.041)	(0.041)	(0.073)	(0.038)
Change in Low Qual Share		-0.151***	-0.172***	-0.151***		-0.120***	-0.122**	-0.119***
		(0.047)	(0.064)	(0.039)		(0.033)	(0.050)	(0.031)
Change in No Qual Share		-0.178***	-0.029	-0.178***		-0.200***	-0.091	-0.193***
		(0.054)	(0.085)	(0.052)		(0.045)	(0.073)	(0.044)
Change in Youth Share		0.050	0.004	0.057		0.023	0.012	0.023
		(0.072)	(0.090)	(0.065)		(0.059)	(0.088)	(0.053)
Change in Migrant/Population rate			5.052***				4.173**	
			(1.924)				(1.951)	
Observations	1048	1048	393	1048	1048	1048	393	1048
Number of areas	131	131	131	131	131	131	131	131
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.11 Employment Rate in Levels

Employment Estimates: 135 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
log(NMW/Median Wage)	0.126	0.137*	0.112	-0.069	-0.077	0.008
	(0.081)	(0.083)	(0.188)	(0.072)	(0.072)	(0.164)
Low Qual Share		0.075	0.046		0.085	-0.007
		(0.064)	(0.111)		(0.062)	(0.107)
No Qual Share		-0.221*	-0.155		-0.210**	-0.022
		(0.113)	(0.198)		(0.099)	(0.198)
Youth Share		0.036	-0.250		-0.063	-0.187
		(0.235)	(0.410)		(0.225)	(0.390)
Migrant/Population rate			-0.721***			-0.699
			(0.172)			(0.464)
Observations	616	616	231	616	616	231
Number of areas	77	77	77	77	77	77
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.12 Employment Rate in First Differences

Employment Estimates: 135 Areas, All 18-21 years

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Employment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.105	0.114	0.147	0.114	-0.019	-0.026	0.022	-0.019
	(0.081)	(0.081)	(0.190)	(0.075)	(0.066)	(0.064)	(0.148)	(0.065)
Change in Low Qual Share		0.075	0.034	0.074		0.071	0.009	0.072
		(0.057)	(0.087)	(0.050)		(0.048)	(0.077)	(0.044)
Change in No Qual Share		-0.266**	0.009	-0.256***		-0.238**	0.125	-0.233***
		(0.118)	(0.175)	(0.099)		(0.100)	(0.148)	(0.089)
Change in Youth Share		0.172	-0.235	0.176		-0.042	-0.236	-0.079
		(0.268)	(0.318)	(0.224)		(0.215)	(0.326)	(0.196)
Change in Migrant/Population rate			-0.898***				-0.807***	
			(0.100)				(0.203)	
Observations	616	616	231	616	616	616	231	616
Number of areas	77	77	77	77	77	77	77	77
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.13 Unemployment Rate in Levels

Unemployment Estimates: 135 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Unemployment Rate (Proportion)						
log(NMW/Median Wage)	0.060*	0.052**	0.091**	0.009	0.007	0.056*
	(0.032)	(0.025)	(0.042)	(0.018)	(0.018)	(0.034)
Low Qual Share		0.033	-0.044		0.024	-0.039
		(0.026)	(0.039)		(0.019)	(0.036)
No Qual Share		0.098***	0.114		0.069***	0.059
		(0.029)	(0.070)		(0.024)	(0.053)
Youth Share		-0.030	-0.038		0.015	-0.009
		(0.050)	(0.042)		(0.022)	(0.039)
Migrant/Population rate			4.764*			1.894
			(2.614)			(2.148)
Observations	1080	1080	405	1080	1080	405
Number of areas	135	135	135	135	135	135
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.14 Unemployment Rate in First Differences

Unemployment Estimates: 135 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Unemployment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.029	0.026	0.086**	0.025	0.002	0.003	0.035	0.001
	(0.026)	(0.022)	(0.035)	(0.027)	(0.018)	(0.018)	(0.030)	(0.017)
Change in Low Qual Share		0.050	0.012	0.050*		0.009	-0.032	0.008
		(0.041)	(0.032)	(0.030)		(0.019)	(0.028)	(0.016)
Change in No Qual Share		0.039	0.126**	0.037		0.034	0.087**	0.031
		(0.040)	(0.057)	(0.035)		(0.023)	(0.041)	(0.021)
Change in Youth Share		-0.051	-0.038	-0.053		-0.011	0.006	-0.012
		(0.049)	(0.035)	(0.037)		(0.021)	(0.031)	(0.019)
Change in Migrant/Population rate			4.502**				0.641	
			(2.153)				(2.063)	
Observations	1080	1080	405	1080	1080	1080	405	1080
Number of areas	135	135	135	135	135	135	135	135
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.15 Unemployment Rate in Levels

Unemployment Estimates: 135 Areas, Adult Males

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Unemployment Rate (Proportion)						
log(NMW/Median Wage)	0.023	0.021	0.094**	-0.003	-0.003	0.040
	(0.024)	(0.024)	(0.047)	(0.019)	(0.019)	(0.037)
Low Qual Share		0.005	0.004		0.016	0.022
		(0.022)	(0.039)		(0.019)	(0.038)
No Qual Share		0.072**	0.027		0.072***	0.008
		(0.036)	(0.083)		(0.027)	(0.061)
Youth Share		0.082**	-0.057		0.054*	-0.011
		(0.038)	(0.065)		(0.028)	(0.055)
Migrant/Population rate			2.466			2.402*
			(1.969)			(1.456)
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.16 Unemployment Rate in First Differences

Unemployment Estimates: 135 Areas, Adult Males

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Unemployment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.006	0.003	0.077**	0.003	-0.012	-0.013	0.042	-0.013
	(0.022)	(0.022)	(0.036)	(0.025)	(0.017)	(0.017)	(0.029)	(0.017)
Change in Low Qual Share		0.013	0.016	0.011		0.008	0.013	0.006
		(0.025)	(0.033)	(0.021)		(0.019)	(0.027)	(0.016)
Change in No Qual Share		0.034	0.049	0.033		0.046*	0.051	0.045*
		(0.041)	(0.064)	(0.034)		(0.027)	(0.045)	(0.024)
Change in Youth Share		0.033	-0.008	0.032		0.009	0.014	0.008
		(0.043)	(0.053)	(0.035)		(0.029)	(0.043)	(0.025)
Change in Migrant/Population rate			1.314				1.450	
			(1.611)				(1.316)	
Observations	1048	1048	393	1048	1048	1048	393	1048
Number of areas	131	131	131	131	131	131	131	131
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.17 Unemployment Rate in Levels

Unemployment Estimates: 135 Areas, Adult Females

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Unemployment Rate (Proportion)						
log(NMW/Median Wage)	0.034*	0.033*	-0.028	0.034**	0.031**	-0.046
	(0.019)	(0.019)	(0.049)	(0.015)	(0.015)	(0.042)
Low Qual Share		0.002	-0.033		0.016	-0.013
		(0.019)	(0.041)		(0.016)	(0.032)
No Qual Share		0.015	-0.038		0.014	-0.022
		(0.029)	(0.058)		(0.021)	(0.047)
Youth Share		-0.020	0.013		-0.010	-0.006
		(0.030)	(0.075)		(0.024)	(0.060)
Migrant/Population rate			-0.781			-1.531
			(1.668)			(1.480)
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.18 Unemployment Rate in First Differences

Unemployment Estimates: 135 Areas, Adult Females

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Unemployment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.011	0.011	-0.018	0.009	0.011	0.011	-0.038	0.009
	(0.022)	(0.022)	(0.034)	(0.022)	(0.018)	(0.018)	(0.030)	(0.018)
Change in Low Qual Share		-0.019	-0.049*	-0.020		-0.003	-0.036	-0.004
		(0.019)	(0.030)	(0.018)		(0.016)	(0.023)	(0.015)
Change in No Qual Share		0.031	0.006	0.030		0.013	0.008	0.011
		(0.026)	(0.039)	(0.023)		(0.023)	(0.034)	(0.020)
Change in Youth Share		-0.010	-0.009	-0.011		-0.006	0.001	-0.006
		(0.030)	(0.049)	(0.030)		(0.025)	(0.041)	(0.025)
Change in Migrant/Population rate			-0.454				-1.773	
			(1.178)				(1.372)	
Observations	1048	1048	393	1048	1048	1048	393	1048
Number of areas	131	131	131	131	131	131	131	131
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.19 Unemployment Rate in Levels

Unemployment Estimates: 135 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Unemployment Rate (Proportion)						
log(NMW/Median Wage)	-0.004	-0.012	0.160	0.061	0.047	0.200
	(0.061)	(0.060)	(0.175)	(0.049)	(0.048)	(0.144)
Low Qual Share		0.020	-0.025		0.061*	0.070
		(0.039)	(0.089)		(0.034)	(0.076)
No Qual Share		0.146*	0.252		0.116	0.139
		(0.084)	(0.237)		(0.071)	(0.184)
Youth Share		-0.038	-0.153		-0.117	-0.134
		(0.146)	(0.462)		(0.143)	(0.362)
Migrant/Population rate			-0.161			-0.223
			(0.173)			(0.411)
Observations	616	616	231	616	616	231
Number of areas	77	77	77	77	77	77
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.20 Unemployment Rate in First Differences

Unemployment Estimates: 135 Areas, All 18-21 years

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			Unweighted			Weighted by Area Population		
Dependent Variable: Change Unemployment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.028	0.019	0.085	0.020	0.067	0.052	0.139	0.046
	(0.054)	(0.054)	(0.124)	(0.052)	(0.047)	(0.044)	(0.120)	(0.049)
Change in Low Qual Share		-0.014	-0.014	-0.016		0.055	0.058	0.055
		(0.045)	(0.068)	(0.038)		(0.038)	(0.062)	(0.034)
Change in No Qual Share		0.238***	0.153	0.237***		0.149*	0.034	0.149**
		(0.089)	(0.176)	(0.080)		(0.086)	(0.147)	(0.073)
Change in Youth Share		-0.178	-0.313	-0.178		-0.194	-0.332	-0.173
		(0.157)	(0.330)	(0.166)		(0.170)	(0.317)	(0.161)
Change in Migrant/Population rate			-0.291***				-0.303	
			(0.110)				(0.211)	
Observations	616	616	231	616	616	616	231	616
Number of areas	77	77	77	77	77	77	77	77
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.21 Total Hours in Levels

Total Hours Estimates: 135 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(Total Hours)						
log(NMW/Median Wage)	-0.099	-0.078	0.054	0.028	0.025	-0.006
	(0.162)	(0.143)	(0.208)	(0.074)	(0.071)	(0.148)
Low Qual Share		-0.258**	-0.149		-0.125	-0.060
		(0.126)	(0.231)		(0.083)	(0.148)
No Qual Share		-0.233	-0.566		-0.327***	-0.402*
		(0.166)	(0.405)		(0.098)	(0.243)
Youth Share		-0.118	0.025		-0.402***	-0.268
		(0.245)	(0.230)		(0.101)	(0.206)
Migrant/Population rate			-33.112***			-15.468**
			(12.528)			(7.327)
Observations	1080	1080	405	1080	1080	405
Number of areas	135	135	135	135	135	135
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.22 Total Hours in First Differences

Total Hours Estimates: 135 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Log(Total Hours)								
Change in log(NMW/Median Wage)	-0.020	-0.007	-0.067	-0.009	-0.002	-0.005	-0.053	-0.012
	(0.141)	(0.124)	(0.173)	(0.114)	(0.073)	(0.070)	(0.121)	(0.071)
Change in Low Qual Share		-0.314*	-0.237	-0.320***		-0.126	-0.066	-0.125*
		(0.166)	(0.197)	(0.119)		(0.083)	(0.111)	(0.075)
Change in No Qual Share		-0.123	-0.437**	-0.116		-0.303***	-0.311**	-0.302***
		(0.217)	(0.218)	(0.174)		(0.104)	(0.144)	(0.095)
Change in Youth Share		0.034	0.047	0.035		-0.295***	-0.237	-0.292***
		(0.249)	(0.268)	(0.157)		(0.105)	(0.150)	(0.092)
Change in Migrant/Population rate			-31.996***				-13.356*	
			(11.675)				(7.227)	
Observations	1080	1080	405	1080	1080	1080	405	1080
Number of areas	135	135	135	135	135	135	135	135
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.23 Total Hours in Levels

Total Hours Estimates: 135 Areas, Adult Males

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(Total Hours)						
log(NMW/Median Wage)	-0.065	-0.066	0.027	0.001	0.007	-0.010
	(0.113)	(0.105)	(0.239)	(0.069)	(0.067)	(0.135)
Low Qual Share		0.110	0.047		0.073	-0.074
		(0.100)	(0.207)		(0.077)	(0.144)
No Qual Share		-0.522***	-0.449		-0.371***	-0.295
		(0.132)	(0.281)		(0.096)	(0.198)
Youth Share		-0.390***	0.152		-0.561***	-0.325
		(0.141)	(0.287)		(0.111)	(0.247)
Migrant/Population rate			-16.348**			-14.469***
			(7.717)			(5.141)
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.24 Total Hours in First Differences

Total Hours Estimates: 135 Areas, Adult Males

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Log(Total Hours)								
Change in log(NMW/Median Wage)	-0.033	-0.024	-0.231	-0.032	-0.010	0.008	-0.118	0.000
	(0.099)	(0.089)	(0.163)	(0.100)	(0.069)	(0.067)	(0.108)	(0.068)
Change in Low Qual Share		0.113	-0.061	0.118		0.072	-0.079	0.076
		(0.100)	(0.136)	(0.089)		(0.075)	(0.109)	(0.069)
Change in No Qual Share		-0.482***	-0.410**	-0.495***		-0.347***	-0.230*	-0.352***
		(0.140)	(0.188)	(0.123)		(0.093)	(0.129)	(0.092)
Change in Youth Share		-0.293**	0.030	-0.297**		-0.445***	-0.299*	-0.442***
		(0.135)	(0.190)	(0.151)		(0.112)	(0.180)	(0.110)
Change in Migrant/Population rate			-19.557***				-15.860***	
			(6.916)				(5.616)	
Observations	1048	1048	393	1048	1048	1048	393	1048
Number of areas	131	131	131	131	131	131	131	131
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.25 Total Hours in Levels

Total Hours Estimates: 135 Areas, Adult Females

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(Total Hours)						
log(NMW/Median Wage)	0.088	0.101	0.045	0.015	0.059	0.001
	(0.107)	(0.104)	(0.242)	(0.089)	(0.085)	(0.184)
Low Qual Share		-0.437***	-0.461**		-0.326***	-0.218
		(0.100)	(0.232)		(0.082)	(0.166)
No Qual Share		-0.149	0.151		-0.324***	-0.272
		(0.179)	(0.448)		(0.102)	(0.277)
Youth Share		-0.235	-0.226		-0.258*	-0.209
		(0.148)	(0.357)		(0.133)	(0.311)
Migrant/Population rate			-16.988*			-8.257
			(9.287)			(5.200)
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.26 Total Hours in First Differences

Total Hours Estimates: 135 Areas, Adult Females

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Log(Total Hours)								
Change in log(NMW/Median Wage)	0.114	0.132	0.235	0.137	0.116	0.131	0.176	0.131
	(0.106)	(0.099)	(0.179)	(0.100)	(0.092)	(0.090)	(0.146)	(0.081)
Change in Low Qual Share		-0.435***	-0.261	-0.436***		-0.306***	-0.156	-0.302***
		(0.108)	(0.180)	(0.098)		(0.081)	(0.130)	(0.075)
Change in No Qual Share		-0.156	0.043	-0.156		-0.350***	-0.212	-0.349***
		(0.141)	(0.235)	(0.130)		(0.111)	(0.178)	(0.103)
Change in Youth Share		-0.128	-0.143	-0.118		-0.208	-0.207	-0.207
		(0.122)	(0.220)	(0.147)		(0.142)	(0.220)	(0.132)
Change in Migrant/Population rate			-9.382				-5.847	
			(6.824)				(4.846)	
Observations	1048	1048	393	1048	1048	1048	393	1048
Number of areas	131	131	131	131	131	131	131	131
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.27 Total Hours in Levels

Total Hours Estimates: 135 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(Total Hours)						
log(NMW/Median Wage)	-0.057	0.176	-0.001	-0.404*	-0.143	-0.368
	(0.277)	(0.246)	(0.503)	(0.226)	(0.205)	(0.424)
Low Qual Share		-0.007	0.009		0.126	0.071
		(0.135)	(0.269)		(0.122)	(0.246)
No Qual Share		0.025	0.514		-0.305	0.162
		(0.250)	(0.480)		(0.198)	(0.466)
Youth Share		6.637***	3.976***		6.053***	4.480***
		(0.797)	(1.070)		(0.528)	(0.965)
Migrant/Population rate			-6.380***			-8.118***
			(0.800)			(2.693)
Observations	616	616	231	616	616	231
Number of areas	77	77	77	77	77	77
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.28 Total Hours in First Differences

Total Hours Estimates: 135 Areas, All 18-21 years

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Log(Total Hours)								
Change in log(NMW/Median Wage)	0.068	0.242	0.077	0.247	-0.217	-0.017	-0.171	-0.011
	(0.287)	(0.244)	(0.459)	(0.214)	(0.221)	(0.219)	(0.396)	(0.200)
Change in Low Qual Share		-0.133	-0.119	-0.146		-0.004	0.013	-0.002
		(0.155)	(0.198)	(0.156)		(0.118)	(0.172)	(0.125)
Change in No Qual Share		0.093	0.760*	0.122		-0.360	0.422	-0.346
		(0.319)	(0.406)	(0.279)		(0.245)	(0.350)	(0.233)
Change in Youth Share		6.737***	4.153***	6.753***		5.961***	4.417***	5.818***
		(0.802)	(0.842)	(0.696)		(0.567)	(0.812)	(0.520)
Change in Migrant/Population rate			-6.829***				-8.048***	
			(0.502)				(1.262)	
Observations	616	616	231	616	616	616	231	616
Number of areas	77	77	77	77	77	77	77	77
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.29 Employment Rate with % below in Levels

Employment Estimates: 135 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
Proportion Below NMW t-1	0.028	0.060	0.085	0.200**	0.167**	-0.052
	(0.101)	(0.095)	(0.191)	(0.089)	(0.080)	(0.180)
Low Qual Share		-0.100**	-0.219***		-0.077**	-0.098
		(0.045)	(0.079)		(0.034)	(0.068)
No Qual Share		-0.276***	-0.225**		-0.268***	-0.147
		(0.057)	(0.114)		(0.045)	(0.096)
Youth Share		0.084	0.197**		-0.013	0.040
		(0.086)	(0.098)		(0.041)	(0.075)
Migrant/Population rate			-5.530			-0.432
			(4.507)			(3.557)
Observations	1080	1080	405	1080	1080	405
Number of areas	135	135	135	135	135	135
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.30 Employment Rate with % below in First Differences

Employment Estimates: 135 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change Employment Rate (Proportion)						
Proportion Below NMW t-1	0.053	0.027	0.010	0.059	0.035	-0.071
	(0.100)	(0.075)	(0.140)	(0.044)	(0.041)	(0.086)
Change in Low Qual Share		-0.117***	-0.119***		-0.063**	-0.063**
		(0.039)	(0.043)		(0.028)	(0.030)
Change in No Qual Share		-0.225***	-0.224***		-0.241***	-0.236***
		(0.062)	(0.065)		(0.039)	(0.041)
Change in Youth Share		0.127***	0.130**		0.027	0.029
		(0.046)	(0.051)		(0.034)	(0.036)
Change in Migrant/Population rate						
Observations	1080	1080	1080	1080	1080	1080
Number of areas	135	135	135	135	135	135
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.31 Employment Rate with % below in Levels

Employment Estimates: 135 Areas, Adult Males

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
Proportion Below NMW t-1	0.131	0.126	0.149	0.250**	0.242**	0.059
	(0.111)	(0.106)	(0.214)	(0.117)	(0.110)	(0.199)
Low Qual Share		0.048	0.004		-0.004	-0.067
		(0.035)	(0.071)		(0.032)	(0.061)
No Qual Share		-0.368***	-0.361***		-0.277***	-0.225***
		(0.048)	(0.102)		(0.040)	(0.086)
Youth Share		-0.021	0.187*		-0.063	0.027
		(0.064)	(0.103)		(0.045)	(0.092)
Migrant/Population rate			-4.875			-3.370
			(2.982)			(2.196)
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.32 Employment Rate with % below in First Differences

Employment Estimates: 135 Areas, Male Adults

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change Employment Rate (Proportion)						
Proportion Below NMW t-1	0.024	-0.005	-0.163	0.062	0.053	-0.105
	(0.116)	(0.112)	(0.181)	(0.091)	(0.088)	(0.149)
Change in Low Qual Share		0.048	0.050		0.007	0.010
		(0.036)	(0.039)		(0.027)	(0.029)
Change in No Qual Share		-0.384***	-0.391***		-0.279***	-0.282***
		(0.049)	(0.052)		(0.037)	(0.039)
Change in Youth Share		0.023	0.024		-0.004	-0.004
		(0.057)	(0.061)		(0.042)	(0.044)
Change in Migrant/Population rate						
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.33 Employment Rate with % below in Levels

Employment Estimates: 135 Areas, Adult Females

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
Proportion Below NMW t-1	0.096	0.091	-0.075	0.162**	0.115	-0.062
	(0.095)	(0.093)	(0.203)	(0.082)	(0.073)	(0.159)
Low Qual Share		-0.148***	-0.264***		-0.137***	-0.153**
		(0.044)	(0.076)		(0.035)	(0.073)
No Qual Share		-0.199***	0.024		-0.227***	-0.076
		(0.067)	(0.113)		(0.049)	(0.107)
Youth Share		-0.008	-0.068		0.009	-0.011
		(0.078)	(0.112)		(0.062)	(0.116)
Migrant/Population rate			4.073*			3.973
			(2.381)			(2.512)
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.34 Employment Rate with % below in First Differences

Employment Estimates: 135 Areas, Female Adults

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change Employment Rate (Proportion)						
Proportion Below NMW t-1	0.005	0.006	-0.019	0.059	0.038	0.016
	(0.061)	(0.061)	(0.108)	(0.042)	(0.042)	(0.081)
Change in Low Qual Share		-0.151***	-0.151***		-0.118***	-0.118***
		(0.037)	(0.039)		(0.029)	(0.031)
Change in No Qual Share		-0.178***	-0.177***		-0.199***	-0.195***
		(0.050)	(0.052)		(0.041)	(0.044)
Change in Youth Share		0.050	0.057		0.020	0.023
		(0.060)	(0.065)		(0.050)	(0.053)
Change in Migrant/Population rate						
Observations	1048	1048	393	1048	1048	393
Number of areas	131	131	131	131	131	131
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.35 Employment Rate with % below in Levels

Employment Estimates: 135 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
Proportion Below NMW t-1	0.141	0.145	0.126	0.190*	0.191**	0.135
	(0.109)	(0.108)	(0.179)	(0.098)	(0.091)	(0.153)
Low Qual Share		0.069	0.054		0.079	-0.006
		(0.062)	(0.112)		(0.058)	(0.107)
No Qual Share		-0.214*	-0.173		-0.212**	-0.031
		(0.110)	(0.207)		(0.097)	(0.205)
Youth Share		-0.016	-0.270		-0.050	-0.182
		(0.234)	(0.417)		(0.215)	(0.395)
Migrant/Population rate			-0.767***			-0.689
			(0.179)			(0.465)
Observations	616	616	231	616	616	231
Number of areas	77	77	77	77	77	77
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table 4.3.36 Employment Rate with % below in First Differences

Employment Estimates: 135 Areas, All 18-21

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change Employment Rate (Proportion)						
Proportion Below NMW t-1	0.120	0.112	0.113	0.090	0.079	0.000
	(0.119)	(0.118)	(0.151)	(0.090)	(0.088)	(0.121)
Change in Low Qual Share		0.073	0.073		0.069*	0.071
		(0.048)	(0.050)		(0.042)	(0.043)
Change in No Qual Share		-0.261***	-0.252**		-0.235***	-0.233***
		(0.094)	(0.100)		(0.083)	(0.089)
Change in Youth Share		0.152	0.161		-0.044	-0.075
		(0.206)	(0.222)		(0.186)	(0.195)
Change in Migrant/Population rate						
Observations	616	616	616	616	616	616
Number of areas	77	77	77	77	77	77
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

10 APPENDIX A4.3

Table A4.3.1 Impact on Inequality

Inequality Estimates:: 208 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(50th/5th hourly wage percentile)						
Proportion Below NMW t-1	-0.250***	-0.251***	-0.215	-0.348***	-0.342***	-0.028
	(0.094)	(0.095)	(0.167)	(0.131)	(0.125)	(0.147)
Low Qual Share		0.028	-0.026		0.032	-0.069
		(0.034)	(0.075)		(0.036)	(0.066)
No Qual Share		-0.017	-0.030		0.060	0.128
		(0.076)	(0.195)		(0.053)	(0.098)
Youth Share		0.000	-0.017		-0.033	-0.053
		(0.047)	(0.077)		(0.050)	(0.064)
Migrant/Population rate						
Observations	1664	1664	624	1664	1664	624
Number of areas	208	208	208	208	208	208
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.2 Impact on Inequality

Inequality Estimates:: 208 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change in Log(50th/5th hourly wage percentile)						
Proportion Below NMW t-1	-0.280***	-0.281***	-0.545***	-0.316***	-0.315***	-0.536***
	(0.082)	(0.079)	(0.157)	(0.061)	(0.060)	(0.109)
Change in Low Qual Share		0.005	0.011		0.015	0.021
		(0.028)	(0.031)		(0.027)	(0.029)
Change in No Qual Share		-0.063	-0.069		-0.004	-0.005
		(0.049)	(0.055)		(0.037)	(0.040)
Change in Youth Share		0.019	0.020		-0.012	-0.011
		(0.035)	(0.037)		(0.029)	(0.031)
Change in Migrant/Population rate						
Observations	1664	1664	1664	1664	1664	1664
Number of areas	208	208	208	208	208	208
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.3 Impact on Inequality

Inequality Estimates:: 208 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(50th/5th hourly wage percentile)						
Proportion Below NMW t-1	0.058	0.070	-0.660***	0.003	0.011	-0.597***
	(0.190)	(0.193)	(0.234)	(0.146)	(0.147)	(0.186)
Low Qual Share		0.012	0.119		-0.031	0.057
		(0.055)	(0.079)		(0.047)	(0.068)
No Qual Share		-0.093	-0.243		0.003	-0.138
		(0.096)	(0.178)		(0.083)	(0.140)
Youth Share		0.344	-0.277		0.324	0.035
		(0.305)	(0.505)		(0.267)	(0.390)
Migrant/Population rate						
Observations	744	744	279	744	744	279
Number of areas	93	93	93	93	93	93
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.4 Impact on Inequality

Inequality Estimates: 208 Areas, All 18-21

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change in Log(50th/5th hourly wage percentile)						
Proportion Below NMW t-1	-0.954***	-0.943***	-1.350***	-0.807***	-0.808***	-1.397***
	(0.203)	(0.203)	(0.259)	(0.150)	(0.150)	(0.197)
Change in Low Qual Share		0.024	0.015		-0.063	-0.069
		(0.056)	(0.060)		(0.047)	(0.049)
Change in No Qual Share		-0.031	-0.010		0.042	0.072
		(0.126)	(0.134)		(0.090)	(0.097)
Change in Youth Share		0.519*	0.457		0.541**	0.448*
		(0.286)	(0.303)		(0.250)	(0.265)
Change in Migrant/Population rate						
Observations	744	744	744	744	744	744
Number of areas	93	93	93	93	93	93
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.5 Employment Rate in Levels

Employment Estimates: 208 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
log(NMW/Median Wage)	-0.037	-0.037	0.029	-0.011	-0.012	0.010
	(0.034)	(0.028)	(0.064)	(0.026)	(0.024)	(0.046)
Low Qual Share		-0.080**	-0.118*		-0.066**	-0.063
		(0.032)	(0.067)		(0.027)	(0.047)
No Qual Share		-0.285***	-0.299***		-0.300***	-0.231***
		(0.044)	(0.081)		(0.036)	(0.064)
Youth Share		0.048	0.135		-0.003	0.043
		(0.058)	(0.084)		(0.033)	(0.055)
Migrant/Population rate			-2.531			0.609
			(3.972)			(2.783)
Observations	1664	1664	624	1664	1664	624
Number of areas	208	208	208	208	208	208
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.6 Employment Rate in First Differences

Employment Estimates: 208 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Employment Rate (Proportion)								
Change in log(NMW/Median Wage)	-0.033	-0.032	0.002	-0.034	-0.003	-0.010	0.026	-0.011
	(0.034)	(0.031)	(0.047)	(0.033)	(0.026)	(0.025)	(0.042)	(0.024)
Change in Low Qual Share		-0.087**	-0.093*	-0.087***		-0.052**	-0.038	-0.052**
		(0.037)	(0.050)	(0.032)		(0.026)	(0.042)	(0.024)
Change in No Qual Share		-0.247***	-0.349***	-0.247***		-0.264***	-0.284***	-0.261***
		(0.050)	(0.068)	(0.046)		(0.036)	(0.053)	(0.033)
Change in Youth Share		0.107**	0.113*	0.109***		0.043	0.047	0.043
		(0.046)	(0.059)	(0.039)		(0.030)	(0.044)	(0.028)
Change in Migrant/Population rate			-3.148				-0.205	
			(3.201)				(2.451)	
Observations	1664	1664	624	1664	1664	1664	624	1664
Number of areas	208	208	208	208	208	208	208	208
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.7 Employment Rate in Levels

Employment Estimates: 208 Areas, Adult Males

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
log(NMW/Median Wage)	0.000	-0.016	-0.012	0.025	0.019	0.009
	(0.032)	(0.030)	(0.054)	(0.024)	(0.023)	(0.042)
Low Qual Share		0.038	0.001		-0.004	-0.058
		(0.026)	(0.050)		(0.026)	(0.048)
No Qual Share		-0.311***	-0.269***		-0.254***	-0.181***
		(0.037)	(0.070)		(0.033)	(0.065)
Youth Share		-0.007	0.117		-0.045	0.028
		(0.046)	(0.084)		(0.037)	(0.077)
Migrant/Population rate			-1.589			-1.817
			(2.779)			(2.338)
Observations	1608	1608	603	1608	1608	603
Number of areas	201	201	201	201	201	201
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.8 Employment Rate in First Differences

Employment Estimates: 208 Areas, Adult Males

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Employment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.013	-0.003	-0.030	-0.002	0.026	0.018	-0.012	0.018
	(0.033)	(0.031)	(0.045)	(0.030)	(0.024)	(0.023)	(0.034)	(0.022)
Change in Low Qual Share		0.022	-0.002	0.022		-0.009	-0.031	-0.008
		(0.029)	(0.042)	(0.027)		(0.024)	(0.036)	(0.022)
Change in No Qual Share		-0.318***	-0.368***	-0.321***		-0.249***	-0.268***	-0.250***
		(0.037)	(0.057)	(0.038)		(0.033)	(0.048)	(0.031)
Change in Youth Share		0.060	0.047	0.060		0.015	-0.004	0.015
		(0.040)	(0.056)	(0.041)		(0.034)	(0.055)	(0.034)
Change in Migrant/Population rate			-1.863				-2.632	
			(2.104)				(1.859)	
Observations	1608	1608	603	1608	1608	1608	603	1608
Number of areas	201	201	201	201	201	201	201	201
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.9 Employment Rate in Levels

Employment Estimates: 208 Areas, Adult Females

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
log(NMW/Median Wage)	-0.014	-0.010	-0.006	-0.038	-0.024	0.004
	(0.034)	(0.034)	(0.088)	(0.029)	(0.027)	(0.074)
Low Qual Share		-0.139***	-0.187***		-0.117***	-0.121**
		(0.036)	(0.064)		(0.029)	(0.056)
No Qual Share		-0.265***	-0.244**		-0.277***	-0.237***
		(0.052)	(0.095)		(0.039)	(0.083)
Youth Share		0.020	0.007		0.028	0.033
		(0.061)	(0.120)		(0.048)	(0.096)
Migrant/Population rate			2.386			2.987
			(1.984)			(2.147)
Observations	1608	1608	603	1608	1608	603
Number of areas	201	201	201	201	201	201
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.10 Employment Rate in First Differences

Employment Estimates: 208 Areas, Adult Females

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Employment Rate (Proportion)								
Change in log(NMW/Median Wage)	-0.009	-0.006	0.054	-0.009	-0.008	-0.003	0.064	-0.006
	(0.038)	(0.037)	(0.067)	(0.035)	(0.031)	(0.029)	(0.055)	(0.029)
Change in Low Qual Share		-0.103***	-0.116**	-0.102***		-0.089***	-0.094**	-0.088***
		(0.036)	(0.048)	(0.031)		(0.027)	(0.040)	(0.025)
Change in No Qual Share		-0.239***	-0.182***	-0.240***		-0.247***	-0.199***	-0.244***
		(0.044)	(0.070)	(0.041)		(0.037)	(0.060)	(0.035)
Change in Youth Share		0.055	0.033	0.058		0.047	0.070	0.046
		(0.056)	(0.082)	(0.051)		(0.044)	(0.070)	(0.042)
Change in Migrant/Population rate			2.763				3.109*	
			(1.684)				(1.718)	
Observations	1608	1608	603	1608	1608	1608	603	1608
Number of areas	201	201	201	201	201	201	201	201
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.11 Employment Rate in Levels

Employment Estimates: 208 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
log(NMW/Median Wage)	-0.001	0.001	0.160	-0.058	-0.064	0.192
	(0.078)	(0.078)	(0.271)	(0.064)	(0.064)	(0.179)
Low Qual Share		0.085*	0.099		0.072	0.029
		(0.048)	(0.096)		(0.050)	(0.097)
No Qual Share		-0.225**	-0.226		-0.253***	-0.077
		(0.095)	(0.208)		(0.075)	(0.181)
Youth Share		-0.015	0.493		0.008	0.275
		(0.181)	(0.449)		(0.183)	(0.370)
Migrant/Population rate			-0.445**			-0.457
			(0.218)			(0.490)
Observations	744	744	279	744	744	279
Number of areas	93	93	93	93	93	93
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.12 Employment Rate in First Differences

Employment Estimates: 208 Areas, All 18-21 years

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Employment Rate (Proportion)								
Change in log(NMW/Median Wage)	-0.056	-0.062	0.040	-0.062	-0.076	-0.088	0.053	-0.082
	(0.085)	(0.084)	(0.215)	(0.077)	(0.069)	(0.067)	(0.144)	(0.066)
Change in Low Qual Share		0.089*	0.115	0.092**		0.059	0.036	0.062
		(0.048)	(0.084)	(0.047)		(0.045)	(0.079)	(0.043)
Change in No Qual Share		-0.272**	-0.178	-0.272***		-0.244***	0.031	-0.245***
		(0.107)	(0.195)	(0.096)		(0.086)	(0.145)	(0.084)
Change in Youth Share		0.201	0.514*	0.210		0.104	0.331	0.094
		(0.190)	(0.310)	(0.182)		(0.188)	(0.302)	(0.173)
Change in Migrant/Population rate			-0.728***				-0.568**	
			(0.138)				(0.259)	
Observations	744	744	279	744	744	744	279	744
Number of areas	93	93	93	93	93	93	93	93
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.13 Unemployment Rate in Levels

Unemployment Estimates: 208 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Unemployment Rate (Proportion)						
log(NMW/Median Wage)	0.037*	0.037**	0.054	0.012	0.012	0.040
	(0.020)	(0.018)	(0.036)	(0.014)	(0.013)	(0.026)
Low Qual Share		0.008	-0.041		0.014	-0.028
		(0.017)	(0.029)		(0.015)	(0.030)
No Qual Share		0.078***	0.117**		0.061***	0.067
		(0.022)	(0.055)		(0.018)	(0.044)
Youth Share		-0.007	-0.016		0.011	-0.009
		(0.032)	(0.038)		(0.016)	(0.030)
Migrant/Population rate			3.245			1.134
			(2.348)			(1.948)
Observations	1664	1664	624	1664	1664	624
Number of areas	208	208	208	208	208	208
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.14 Unemployment Rate in First Differences

Unemployment Estimates: 208 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Unemployment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.024	0.024	0.047	0.023	0.011	0.012	0.029	0.011
	(0.018)	(0.017)	(0.029)	(0.018)	(0.014)	(0.014)	(0.022)	(0.013)
Change in Low Qual Share		0.016	-0.006	0.016		0.006	-0.026	0.005
		(0.025)	(0.024)	(0.020)		(0.014)	(0.022)	(0.013)
Change in No Qual Share		0.046*	0.129***	0.045*		0.036*	0.088***	0.035**
		(0.027)	(0.042)	(0.024)		(0.019)	(0.034)	(0.017)
Change in Youth Share		-0.026	-0.014	-0.027		-0.008	0.007	-0.009
		(0.034)	(0.032)	(0.025)		(0.016)	(0.024)	(0.014)
Change in Migrant/Population rate			3.738*				0.549	
			(2.099)				(1.793)	
Observations	1664	1664	624	1664	1664	1664	624	1664
Number of areas	208	208	208	208	208	208	208	208
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.15 Unemployment Rate in Levels

Unemployment Estimates: 208 Areas, Adult Males

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Unemployment Rate (Proportion)						
log(NMW/Median Wage)	0.019	0.019	0.046	-0.008	-0.007	0.018
	(0.016)	(0.016)	(0.029)	(0.015)	(0.015)	(0.026)
Low Qual Share		-0.001	0.005		0.013	0.017
		(0.015)	(0.025)		(0.015)	(0.029)
No Qual Share		0.057**	0.027		0.057***	0.015
		(0.024)	(0.047)		(0.021)	(0.045)
Youth Share		0.059**	-0.035		0.041*	-0.010
		(0.026)	(0.044)		(0.022)	(0.040)
Migrant/Population rate			1.788			1.838
			(1.535)			(1.335)
Observations	1608	1608	603	1608	1608	603
Number of areas	201	201	201	201	201	201
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.16 Unemployment Rate in First Differences

Unemployment Estimates: 208 Areas, Adult Males

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Unemployment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.005	0.006	0.058**	0.005	-0.017	-0.016	0.027	-0.016
	(0.017)	(0.018)	(0.023)	(0.017)	(0.014)	(0.014)	(0.021)	(0.013)
Change in Low Qual Share		-0.003	0.008	-0.005		0.007	0.012	0.005
		(0.017)	(0.023)	(0.015)		(0.014)	(0.021)	(0.012)
Change in No Qual Share		0.042*	0.047	0.042*		0.040*	0.037	0.040**
		(0.024)	(0.038)	(0.022)		(0.021)	(0.034)	(0.019)
Change in Youth Share		0.025	0.001	0.024		0.015	0.016	0.014
		(0.026)	(0.033)	(0.022)		(0.022)	(0.031)	(0.019)
Change in Migrant/Population rate			1.017				1.156	
			(1.358)				(1.162)	
Observations	1608	1608	603	1608	1608	1608	603	1608
Number of areas	201	201	201	201	201	201	201	201
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.17 Unemployment Rate in Levels

Unemployment Estimates: 208 Areas, Adult Females

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Unemployment Rate (Proportion)						
log(NMW/Median Wage)	0.013	0.013	-0.025	0.027**	0.026**	-0.034
	(0.014)	(0.014)	(0.037)	(0.012)	(0.012)	(0.032)
Low Qual Share		-0.001	-0.013		0.008	-0.004
		(0.016)	(0.033)		(0.013)	(0.027)
No Qual Share		0.025	0.047		0.021	0.022
		(0.021)	(0.053)		(0.017)	(0.043)
Youth Share		-0.023	-0.048		-0.016	-0.025
		(0.026)	(0.054)		(0.019)	(0.046)
Migrant/Population rate			-1.087			-1.550
			(1.328)			(1.287)
Observations	1608	1608	603	1608	1608	603
Number of areas	201	201	201	201	201	201
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.18 Unemployment Rate in First Differences

Unemployment Estimates: 208 Areas, Adult Females

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Unemployment Rate (Proportion)								
Change in log(NMW/Median Wage)	-0.001	-0.001	-0.040	-0.003	0.010	0.011	-0.036	0.009
	(0.017)	(0.017)	(0.029)	(0.016)	(0.014)	(0.014)	(0.024)	(0.014)
Change in Low Qual Share		-0.021	-0.032	-0.022		-0.008	-0.024	-0.010
		(0.017)	(0.025)	(0.014)		(0.013)	(0.019)	(0.012)
Change in No Qual Share		0.050**	0.061*	0.050***		0.030*	0.039	0.029*
		(0.021)	(0.033)	(0.019)		(0.018)	(0.030)	(0.017)
Change in Youth Share		-0.030	-0.029	-0.030		-0.025	-0.013	-0.024
		(0.025)	(0.040)	(0.023)		(0.021)	(0.035)	(0.021)
Change in Migrant/Population rate			-0.957				-1.683	
			(1.090)				(1.216)	
Observations	1608	1608	603	1608	1608	1608	603	1608
Number of areas	201	201	201	201	201	201	201	201
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.19 Unemployment Rate in Levels

Unemployment Estimates: 208 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Unemployment Rate (Proportion)						
log(NMW/Median Wage)	0.044	0.034	0.186	0.054	0.047	0.153
	(0.055)	(0.055)	(0.176)	(0.047)	(0.047)	(0.135)
Low Qual Share		0.013	-0.053		0.059*	0.029
		(0.033)	(0.073)		(0.032)	(0.071)
No Qual Share		0.163**	0.232		0.147***	0.139
		(0.065)	(0.178)		(0.055)	(0.159)
Youth Share		0.021	-0.366		-0.075	-0.360
		(0.104)	(0.373)		(0.117)	(0.325)
Migrant/Population rate			-0.229			-0.259
			(0.156)			(0.412)
Observations	744	744	279	744	744	279
Number of areas	93	93	93	93	93	93
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.20 Unemployment Rate in First Differences

Unemployment Estimates: 208 Areas, All 18-21 years

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Unemployment Rate (Proportion)								
Change in log(NMW/Median Wage)	0.069	0.066	0.139	0.065	0.071	0.062	0.150	0.056
	(0.052)	(0.052)	(0.123)	(0.050)	(0.050)	(0.048)	(0.103)	(0.047)
Change in Low Qual Share		-0.007	-0.044	-0.010		0.053	0.039	0.052
		(0.039)	(0.058)	(0.033)		(0.039)	(0.061)	(0.034)
Change in No Qual Share		0.222***	0.164	0.225***		0.146**	0.014	0.146**
		(0.074)	(0.139)	(0.068)		(0.073)	(0.128)	(0.068)
Change in Youth Share		-0.100	-0.321	-0.093		-0.122	-0.366	-0.097
		(0.129)	(0.270)	(0.136)		(0.155)	(0.281)	(0.144)
Change in Migrant/Population rate			-0.276***				-0.273	
			(0.105)				(0.213)	
Observations	744	744	279	744	744	744	279	744
Number of areas	93	93	93	93	93	93	93	93
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.21 Total Hours in Levels

Total Hours Estimates: 208 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(Total Hours)						
log(NMW/Median Wage)	-0.056	-0.048	-0.036	0.024	0.021	-0.008
	(0.101)	(0.099)	(0.163)	(0.061)	(0.059)	(0.122)
Low Qual Share		-0.179**	-0.190		-0.139**	-0.138
		(0.085)	(0.178)		(0.065)	(0.130)
No Qual Share		-0.299**	-0.566**		-0.337***	-0.398**
		(0.119)	(0.269)		(0.085)	(0.185)
Youth Share		-0.208	-0.025		-0.392***	-0.260
		(0.156)	(0.222)		(0.077)	(0.164)
Migrant/Population rate			-22.505**			-16.611**
			(10.157)			(6.499)
Observations	1664	1664	624	1664	1664	624
Number of areas	208	208	208	208	208	208
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.22 Total Hours in First Differences

Total Hours Estimates: 208 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Log(Total Hours)								
Change in log(NMW/Median Wage)	0.075	0.081	-0.020	0.084	0.061	0.061	-0.008	0.061
	(0.091)	(0.083)	(0.116)	(0.079)	(0.061)	(0.059)	(0.100)	(0.056)
Change in Low Qual Share		-0.211*	-0.203	-0.213***		-0.133**	-0.139	-0.131**
		(0.109)	(0.145)	(0.081)		(0.065)	(0.100)	(0.059)
Change in No Qual Share		-0.211	-0.372**	-0.205*		-0.285***	-0.257**	-0.284***
		(0.147)	(0.167)	(0.120)		(0.086)	(0.122)	(0.077)
Change in Youth Share		-0.046	0.054	-0.044		-0.281***	-0.209*	-0.282***
		(0.156)	(0.197)	(0.109)		(0.076)	(0.115)	(0.069)
Change in Migrant/Population rate			-26.555***				-17.858**	
			(9.695)				(6.996)	
Observations	1664	1664	624	1664	1664	1664	624	1664
Number of areas	208	208	208	208	208	208	208	208
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.23 Total Hours in Levels

Total Hours Estimates: 208 Areas, Adult Males

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(Total Hours)						
log(NMW/Median Wage)	-0.050	-0.060	-0.028	-0.001	-0.007	-0.004
	(0.072)	(0.069)	(0.163)	(0.059)	(0.057)	(0.116)
Low Qual Share		0.093	-0.067		0.049	-0.121
		(0.069)	(0.146)		(0.063)	(0.121)
No Qual Share		-0.439***	-0.359		-0.348***	-0.281
		(0.094)	(0.220)		(0.085)	(0.173)
Youth Share		-0.397***	-0.127		-0.512***	-0.340*
		(0.105)	(0.231)		(0.086)	(0.201)
Migrant/Population rate			-15.755**			-15.370***
			(7.195)			(4.744)
Observations	1608	1608	603	1608	1608	603
Number of areas	201	201	201	201	201	201
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.24 Total Hours in First Differences

Total Hours Estimates: 208 Areas, Adult Males

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Log(Total Hours)								
Change in log(NMW/Median Wage)	0.006	-0.001	-0.145	-0.002	0.008	0.009	-0.118	0.006
	(0.070)	(0.066)	(0.112)	(0.070)	(0.059)	(0.056)	(0.087)	(0.054)
Change in Low Qual Share		0.039	-0.095	0.040		0.042	-0.105	0.044
		(0.072)	(0.111)	(0.062)		(0.060)	(0.090)	(0.054)
Change in No Qual Share		-0.395***	-0.340**	-0.396***		-0.312***	-0.231**	-0.313***
		(0.098)	(0.164)	(0.092)		(0.080)	(0.113)	(0.075)
Change in Youth Share		-0.271***	-0.158	-0.272***		-0.399***	-0.339**	-0.401***
		(0.099)	(0.161)	(0.104)		(0.084)	(0.133)	(0.083)
Change in Migrant/Population rate			-21.984***				-19.124***	
			(6.052)				(5.202)	
Observations	1608	1608	603	1608	1608	1608	603	1608
Number of areas	201	201	201	201	201	201	201	201
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.25 Total Hours in Levels

Total Hours Estimates: 208 Areas, Adult Females

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(Total Hours)						
log(NMW/Median Wage)	-0.036	-0.027	0.160	-0.054	-0.031	0.026
	(0.073)	(0.072)	(0.197)	(0.067)	(0.065)	(0.167)
Low Qual Share		-0.401***	-0.331*		-0.346***	-0.204
		(0.082)	(0.175)		(0.068)	(0.138)
No Qual Share		-0.295**	-0.336		-0.319***	-0.385*
		(0.129)	(0.322)		(0.085)	(0.223)
Youth Share		-0.309***	-0.374		-0.284***	-0.240
		(0.118)	(0.273)		(0.106)	(0.239)
Migrant/Population rate			-15.479**			-11.392**
			(6.907)			(4.833)
Observations	1608	1608	603	1608	1608	603
Number of areas	201	201	201	201	201	201
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.26 Total Hours in First Differences

Total Hours Estimates: 208 Areas, Adult Females

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Log(Total Hours)								
Change in log(NMW/Median Wage)	0.052	0.061	0.226*	0.060	0.000	0.016	0.111	0.013
	(0.083)	(0.083)	(0.134)	(0.079)	(0.076)	(0.076)	(0.123)	(0.069)
Change in Low Qual Share		-0.325***	-0.191	-0.325***		-0.315***	-0.184*	-0.314***
		(0.085)	(0.128)	(0.076)		(0.068)	(0.105)	(0.062)
Change in No Qual Share		-0.258**	-0.202	-0.261**		-0.323***	-0.232	-0.324***
		(0.118)	(0.195)	(0.102)		(0.093)	(0.149)	(0.085)
Change in Youth Share		-0.207*	-0.151	-0.202*		-0.225**	-0.125	-0.226**
		(0.109)	(0.176)	(0.118)		(0.108)	(0.161)	(0.104)
Change in Migrant/Population rate			-13.932**				-10.796**	
			(6.248)				(5.058)	
Observations	1608	1608	603	1608	1608	1608	603	1608
Number of areas	201	201	201	201	201	201	201	201
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.27 Total Hours in Levels

Total Hours Estimates: 208 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Log(Total Hours)						
log(NMW/Median Wage)	-0.202	0.027	-0.094	-0.221	-0.116	-0.173
	(0.239)	(0.206)	(0.717)	(0.208)	(0.176)	(0.457)
Low Qual Share		-0.080	0.041		0.061	0.126
		(0.136)	(0.254)		(0.132)	(0.247)
No Qual Share		-0.176	0.167		-0.397**	0.156
		(0.224)	(0.558)		(0.181)	(0.408)
Youth Share		6.901***	6.236***		6.530***	6.208***
		(0.615)	(1.122)		(0.450)	(0.964)
Migrant/Population rate			-5.855***			-7.685***
			(0.860)			(2.630)
Observations	744	744	279	744	744	279
Number of areas	93	93	93	93	93	93
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.28 Total Hours in First Differences

Total Hours Estimates: 208 Areas, All 18-21 years

First Differences: 2000-07

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Unweighted			Weighted by Area Population			
Dependent Variable: Change Log(Total Hours)								
Change in log(NMW/Median Wage)	-0.163	0.042	-0.114	0.054	-0.219	-0.065	-0.188	-0.051
	(0.300)	(0.241)	(0.551)	(0.203)	(0.217)	(0.195)	(0.386)	(0.183)
Change in Low Qual Share		-0.180	0.039	-0.183		-0.060	0.095	-0.055
		(0.152)	(0.190)	(0.137)		(0.137)	(0.193)	(0.125)
Change in No Qual Share		-0.154	0.053	-0.141		-0.422*	0.169	-0.418*
		(0.297)	(0.467)	(0.263)		(0.230)	(0.353)	(0.214)
Change in Youth Share		6.941***	6.841***	6.962***		6.594***	6.681***	6.521***
		(0.615)	(0.855)	(0.564)		(0.518)	(0.822)	(0.483)
Change in Migrant/Population rate			-6.482***				-7.390***	
			(0.526)				(1.092)	
Observations	744	744	279	744	744	744	279	744
Number of areas	93	93	93	93	93	93	93	93
Fixed Effects	No	No	No	Yes	No	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.29 Employment Rate with % below in Levels

Employment Estimates: 208 Areas, All Adults

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
Proportion Below NMW t-1	0.052	0.066	0.022	0.120*	0.100	-0.069
	(0.085)	(0.077)	(0.154)	(0.072)	(0.064)	(0.143)
Low Qual Share		-0.081**	-0.117*		-0.066**	-0.061
		(0.032)	(0.067)		(0.026)	(0.054)
No Qual Share		-0.284***	-0.298***		-0.298***	-0.230***
		(0.045)	(0.079)		(0.036)	(0.071)
Youth Share		0.048	0.136		-0.004	0.044
		(0.059)	(0.086)		(0.033)	(0.063)
Migrant/Population rate			-2.310			0.422
			(3.957)			(3.085)
Observations	1664	1664	624	1664	1664	624
Number of areas	208	208	208	208	208	208
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.30 Employment Rate with % below in First Differences

Employment Estimates: 208 Areas, All Adults

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change Employment Rate (Proportion)						
Proportion Below NMW t-1	0.041	0.031	0.015	0.045	0.027	-0.041
	(0.074)	(0.061)	(0.108)	(0.039)	(0.036)	(0.072)
Change in Low Qual Share		-0.087***	-0.087***		-0.052**	-0.052**
		(0.030)	(0.032)		(0.023)	(0.024)
Change in No Qual Share		-0.248***	-0.248***		-0.263***	-0.260***
		(0.043)	(0.046)		(0.031)	(0.033)
Change in Youth Share		0.106***	0.108***		0.042	0.042
		(0.036)	(0.039)		(0.026)	(0.028)
Change in Migrant/Population rate						
Observations	1664	1664	1664	1664	1664	1664
Number of areas	208	208	208	208	208	208
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.31 Employment Rate with % below in Levels

Employment Estimates: 208 Areas, Adult Males

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
Proportion Below NMW t-1	0.067	0.064	0.058	0.210**	0.198**	0.052
	(0.091)	(0.094)	(0.157)	(0.094)	(0.090)	(0.162)
Low Qual Share		0.036	-0.001		-0.004	-0.058
		(0.024)	(0.050)		(0.023)	(0.048)
No Qual Share		-0.309***	-0.267***		-0.254***	-0.181***
		(0.036)	(0.071)		(0.031)	(0.065)
Youth Share		-0.009	0.115		-0.045	0.029
		(0.042)	(0.083)		(0.034)	(0.076)
Migrant/Population rate			-1.522			-1.868
			(2.769)			(2.327)
Observations	1608	1608	603	1608	1608	603
Number of areas	201	201	201	201	201	201
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.32 Employment Rate with % below in First Differences

Employment Estimates: 208 Areas, Male Adults

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change Employment Rate (Proportion)						
Proportion Below NMW t-1	0.024	-0.005	-0.163	0.062	0.053	-0.105
	(0.116)	(0.112)	(0.181)	(0.091)	(0.088)	(0.149)
Change in Low Qual Share		0.048	0.050		0.007	0.010
		(0.036)	(0.039)		(0.027)	(0.029)
Change in No Qual Share		-0.384***	-0.391***		-0.279***	-0.282***
		(0.049)	(0.052)		(0.037)	(0.039)
Change in Youth Share		0.023	0.024		-0.004	-0.004
		(0.057)	(0.061)		(0.042)	(0.044)
Change in Migrant/Population rate						
Observations	1608	1608	1608	1608	1608	1608
Number of areas	201	201	201	201	201	201
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.33 Employment Rate with % below in Levels

Employment Estimates: 208 Areas, Adult Females

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
Proportion Below NMW t-1	0.018	0.003	-0.164	0.070	0.034	-0.102
	(0.070)	(0.074)	(0.139)	(0.068)	(0.060)	(0.123)
Low Qual Share		-0.139***	-0.187***		-0.117***	-0.120**
		(0.036)	(0.063)		(0.029)	(0.056)
No Qual Share		-0.265***	-0.231**		-0.276***	-0.234***
		(0.052)	(0.096)		(0.039)	(0.084)
Youth Share		0.020	0.001		0.027	0.035
		(0.061)	(0.121)		(0.048)	(0.096)
Migrant/Population rate			2.299			2.811
			(2.000)			(2.121)
Observations	1608	1608	603	1608	1608	603
Number of areas	201	201	201	201	201	201
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.34 Employment Rate with % below in First Differences

Employment Estimates: 208 Areas, Female Adults

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change Employment Rate (Proportion)						
Proportion Below NMW t-1	-0.019	-0.018	-0.044	0.039	0.022	0.007
	(0.051)	(0.049)	(0.081)	(0.037)	(0.036)	(0.066)
Change in Low Qual Share		-0.103***	-0.102***		-0.089***	-0.088***
		(0.029)	(0.031)		(0.024)	(0.025)
Change in No Qual Share		-0.239***	-0.239***		-0.246***	-0.244***
		(0.039)	(0.041)		(0.033)	(0.035)
Change in Youth Share		0.055	0.057		0.046	0.046
		(0.047)	(0.051)		(0.039)	(0.042)
Change in Migrant/Population rate						
Observations	1608	1608	1608	1608	1608	1608
Number of areas	201	201	201	201	201	201
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.35 Employment Rate with % below in Levels

Employment Estimates: 208 Areas, All 18-21 Years

Levels: 2000-2007

	(1)	(2)	(3)	(4)	(5)	(6)
		Unweighted			Weighted by Area Population	
Dependent Variable: Employment Rate (Proportion)						
Proportion Below NMW t-1	0.061	0.068	0.079	0.106	0.118	0.065
	(0.101)	(0.098)	(0.215)	(0.088)	(0.087)	(0.193)
Low Qual Share		0.084*	0.109		0.068	0.039
		(0.048)	(0.094)		(0.050)	(0.095)
No Qual Share		-0.227**	-0.235		-0.256***	-0.087
		(0.096)	(0.215)		(0.077)	(0.184)
Youth Share		-0.011	0.491		0.020	0.297
		(0.179)	(0.453)		(0.182)	(0.370)
Migrant/Population rate			-0.498**			-0.522
			(0.244)			(0.507)
Observations	744	744	279	744	744	279
Number of areas	93	93	93	93	93	93
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 6 estimated from 2004-07
Robust standard errors in parentheses

Table A4.3.36 Employment Rate with % below in First Differences

Employment Estimates: 208 Areas, All 18-21

First Differences: 2000-07

	(1)	(2)	(4)	(5)	(6)	(8)
		Unweighted			Weighted by Area Population	
Dependent Variable: Change Employment Rate (Proportion)						
Proportion Below NMW t-1	0.020	0.026	0.010	-0.011	-0.013	-0.114
	(0.106)	(0.106)	(0.135)	(0.088)	(0.087)	(0.117)
Change in Low Qual Share		0.086**	0.089*		0.053	0.057
		(0.044)	(0.047)		(0.041)	(0.043)
Change in No Qual Share		-0.269***	-0.270***		-0.238***	-0.238***
		(0.088)	(0.096)		(0.078)	(0.084)
Change in Youth Share		0.212	0.220		0.115	0.094
		(0.169)	(0.183)		(0.161)	(0.171)
Change in Migrant/Population rate						
Observations	744	744	279	744	744	279
Number of areas	93	93	93	93	93	93
Fixed Effects	No	No	Yes	No	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1; Columns 3 and 7 estimated from 2004-07
Robust standard errors in parentheses